

METROPOLITAN ASYLUMS BOARD.

REPORT FOR THE YEAR

1897

OF THE

STATISTICAL COMMITTEE,

WITH

APPENDICES.

(12th YEAR OF ISSUE.)

PRICE FIVE SHILLINGS.

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OF THE

STATISTICAL COMMITTEE

FOR THE YEAR 1897.

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1897-8.

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METROPOLITAN ASYLUMS BOARD.

REPORT OF THE STATISTICAL COMMITTEE FOR THE YEAR 1897.

*To the Managers of the
Metropolitan Asylum District.*

15th June, 1898.

i. INTRODUCTORY.

The year 1897 has been marked by an important addition to the work of the Board. By an Order of the Local Government Board, dated April 2nd, 1897, the Asylums Board has been constituted the authority for dealing with children chargeable to some union or parish in the Metropolitan district, who are :—

- (a) “Suffering from ophthalmia or other contagious diseases of the eye ;
- (b) Suffering from contagious disease of the skin or scalp ;
- (c) Requiring either special treatment during convalescence or the benefit of seaside air ;
- (d) Who, by reason of defect of intellect or physical infirmity, cannot properly be trained in association with children in ordinary schools ; and
- (e) Who are ordered by two justices or a magistrate to be taken, under the Industrial Schools Act, 1866, to a workhouse or an asylum of the district.”

The Managers are not in a position to receive these children until they have provided the necessary institutions for their reception.

The first of these institutions was acquired by the Managers, by transfer from the South Metropolitan School District, on December 26th, 1897. It is known as the S. Anne’s Home, Herne Bay, and is used for the reception, medical treatment, and education of children in class (c) requiring convalescent treatment or sea-air. At the end of the year there were 68 children in this home, but as they were only under the Managers’ care for five days of the year to which this report relates, we have not included any statistics concerning them in the present volume.

A site for the erection of a school for ophthalmic children was secured at Brentwood in November last. The area is $28\frac{1}{2}$ acres and the cost was £2,300.

ii. INFECTIOUS DISEASES.

Notification Statistics. (1.) During the year there were notified in the Metropolis 45,417 (49,708)* cases of infectious disease. Of these, 39,251 (42,876) were legally eligible for admission to the Managers' hospitals. The remainder—mainly cases of erysipelas, but including also 264 (277) cases of puerperal fever—were not eligible. Out of the 39,251 legally eligible cases, 22,964 (22,457)† cases, or 58·5 (52·37) per cent., were actually admitted.

Since 1890, the first complete year in which compulsory notification was in force, the proportion of admissions to the total number of legally admissible cases has been as follows:—In 1890, 33·59 per cent.; in 1891, 36·69 per cent.; in 1892, 43·17 per cent.; in 1893, 36·91 per cent.; in 1894, 52·23 per cent.; in 1895, 50·31 per cent.; in 1896, 52·37 per cent.; and in 1897, 58·5 per cent.

Table A, pp. 13-14, shows the number of notifications of, and deaths from, those notifiable diseases which are eligible for admission to the Managers' hospitals, the ratio of such notifications and deaths to the population, the number of notifications of other notifiable diseases, and the grand total of cases notified during 1897.

Notifications of cases of infectious disease are, under the Public Health (London) Act, 1891, sent to the medical officer of health of the district in which the patient is resident. These districts are those set forth in the table, and are under the control of vestries in the case of single parishes, and of district boards of works in the case of united parishes, and these authorities are known as the sanitary authorities for their respective districts. The admission of patients into the Managers' hospitals, on the contrary, must be assigned to the poor law districts which are responsible for the payment of the cost of the patients' maintenance in hospital. The respective areas of the sanitary districts and the poor law districts are not identical; hence the admissions cannot be shown side by side with the notifications in table A, but are given separately in table III., on p. 23. This is only one—and a comparatively insignificant one—of the many instances known to persons concerned in the local government of London of the inconvenience, confusion, and waste of money which result from the overlapping of the various metropolitan areas.

Facing p. 15 we give a chart showing week by week throughout the year by continuous lines the number of cases of each admissible disease notified, and by dotted lines the number of cases of scarlet fever and diphtheria actually admitted.

The divergence of the notification and admission lines of scarlet fever

* Italic figures in brackets throughout are the corresponding figures for 1896.

† Including the cases detained for observation at South Wharf, see p. 92, and Tottenham and other extra Metropolitan cases shown on pp. 23 and 98.

TABLE A.—Cases of Infectious Disease Notified, and Deaths therefrom, in London in 1897.

Sanitary Authorities in whose Districts the cases were resident.	Estimated Population, 1897.	NOTIFICATIONS OF, AND DEATHS FROM, THOSE NOTIFIABLE DISEASES WHICH ARE ELIGIBLE FOR ADMISSION TO THE MANAGERS' HOSPITALS.														NOTIFICATIONS OF OTHER NOTIFIABLE DISEASES.						GRAND TOTAL OF NOTIFICATIONS.	
		NOTIFICATIONS.								DEATHS.													
		Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric or Typhoid Fever.	Typhus Fever.	TOTAL NOTIFICATIONS.	Annual Rate per 1,000 persons living.	Smallpox.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric or Typhoid Fever.	Typhus Fever.	TOTAL DEATHS.	Annual Rate per 1,000 persons living.	Relapsing Fever.	Continued Fever.	Cholera.	Erysipelas.	Puerperal Fever.		TOTAL.
WEST DISTRICTS.																							
Paddington	126,161	1	489	314	10	46	—	860	6·8	—	21	64	9	—	94	0·75	—	—	1	136	8	145	1,005
Kensington	171,427	—	747	322	10	116	—	1,195	7·0	—	30	81	21	—	132	0·77	—	5	1	237	16	259	1,454
Hammersmith	105,959	—	396	147	7	45	—	595	5·6	—	11	30	8	—	49	0·46	—	4	1	92	8	105	700
Fulham	120,040	—	759	378	10	53	—	1,200	10·0	—	26	63	12	—	101	0·84	—	5	1	134	14	154	1,354
Chelsea	96,692	—	488	306	6	52	—	852	8·8	—	17	54	14	—	85	0·88	—	1	—	98	4	103	955
St. George, Hanover Square...	80,330	1	177	120	—	39	—	337	4·2	—	7	17	10	—	34	0·42	—	2	—	51	1	54	391
Westminster	53,027	—	181	109	1	28	—	319	6·0	—	13	23	6	—	42	0·79	—	1	1	66	4	72	391
St. James, Westminster ...	22,576	3	131	50	1	13	—	198	8·8	—	8	3	3	—	14	0·62	—	2	—	24	1	27	225
NORTH DISTRICTS.																							
Marylebone	140,808	4	397	218	3	88	—	710	5·1	—	9	46	14	—	69	0·49	—	1	2	254	5	262	972
Hampstead	77,275	—	224	104	3	32	—	363	4·7	—	6	17	5	—	28	0·36	—	2	—	40	2	44	407
St. Pancras	242,255	3	942	532	10	223	—	1,710	7·0	1	24	114	38	—	177	0·73	—	8	3	388	15	414	2,124
Islington	341,134	3	1,577	704	29	259	—	2,572	7·6	1	61	129	45	—	236	0·69	—	1	1	313	27	342	2,914
Stoke Newington	34,136	2	108	53	1	37	—	201	5·9	—	2	19	10	—	31	0·91	—	1	—	23	3	27	228
Hackney	216,698	3	1,373	751	29	209	—	2,365	10·9	—	37	134	35	—	206	0·95	—	5	—	273	11	289	2,654
CENTRAL DISTRICTS.																							
St. Giles	37,840	3	209	54	2	32	—	300	8·0	—	7	7	6	—	20	0·53	—	—	—	94	2	96	396
St. Martin-in-the-Fields ...	12,741	1	44	12	2	5	—	64	5·0	1	2	3	1	—	7	0·55	—	—	—	17	—	17	81
Strand	23,552	8	125	39	2	19	—	193	8·2	2	3	5	4	—	14	0·60	—	—	—	17	—	17	210
Holborn	30,493	—	120	159	2	26	—	307	10·1	—	4	16	5	—	25	0·82	—	—	—	47	—	47	354
Clerkenwell	66,162	—	366	345	4	64	—	779	11·8	1	14	48	11	—	74	1·12	—	—	—	96	2	98	877
St. Luke	41,279	—	238	185	1	41	—	465	11·3	—	13	21	4	—	38	0·92	—	—	—	86	2	88	553
City of London	30,228	2	95	60	3	23	—	183	6·1	1	8	10	9	—	28	0·93	—	—	2	26	2	30	213
EAST DISTRICTS.																							
Shoreditch	121,883	1	625	352	19	107	—	1,104	9·1	1	29	78	20	—	128	1·05	—	2	1	226	2	231	1,335
Bethnal Green	129,098	2	723	508	41	106	1	1,381	10·7	—	25	84	17	1	127	0·99	—	—	1	383	7	391	1,772
Whitechapel	79,724	—	500	283	18	55	1	857	10·8	—	15	34	8	—	57	0·72	—	—	—	119	4	123	980
St. George-in-the-East ...	47,917	1	242	183	8	43	—	477	10·0	—	14	28	10	—	52	1·09	1	1	—	85	3	90	567
Limehouse	58,508	—	427	190	3	52	—	672	11·5	—	12	29	4	—	45	0·77	—	—	—	87	4	91	763
Mile End Old Town	111,883	—	816	433	12	83	—	1,344	12·0	—	12	62	23	—	97	0·87	—	—	—	145	7	152	1,496
Poplar	169,811	9	1,041	670	34	195	—	1,949	11·5	—	28	120	30	—	178	1·05	—	3	1	261	12	277	2,226
SOUTH DISTRICTS.																							
St. Saviour, Southwark ...	24,919	—	131	96	8	16	—	251	10·1	—	7	12	2	—	21	0·85	—	—	—	28	—	28	279
St. George, Southwark...	60,388	1	381	185	6	40	—	613	10·2	1	14	28	10	—	53	0·88	—	1	—	88	1	90	703
Newington	122,191	—	768	317	14	79	—	1,178	9·7	—	33	65	9	—	107	0·88	—	—	—	159	16	175	1,353
St. Olave, Southwark ...	11,480	1	88	29	—	10	—	128	11·2	—	2	2	1	—	5	0·44	—	—	—	10	1	11	139
Bermondsey	85,629	1	507	269	9	61	—	847	9·9	—	34	62	13	—	109	1·28	—	—	—	94	1	95	942
Rotherhithe	40,643	—	288	81	5	24	—	398	9·8	—	22	21	2	—	45	1·11	—	—	—	73	4	77	475
Lambeth	300,048	2	1,388	726	15	183	—	2,314	7·7	—	42	144	26	—	212	0·71	—	11	17	322	27	377	2,691
Battersea	168,877	5	1,585	603	18	93	1	2,305	13·7	—	47	106	19	—	172	1·02	—	—	1	211	7	219	2,524
Wandsworth	195,612	1	1,024	563	10	98	—	1,696	8·7	—	29	111	16	—	156	0·80	—	6	—	239	9	254	1,950
Camberwell	257,575	32	1,191	1,151	19	149	—	2,542	9·9	5	32	170	31	—	238	0·93	—	2	—	297	14	313	2,855
Greenwich	178,367	1	817	591	9	144	—	1,562	8·8	2	32	70	29	—	133	0·75	—	2	—	239	10	251	1,813
Lewisham (excluding Penge)	86,152	—	298	217	2	46	—	563	6·6	—	9	36	7	—	52	0·61	—	—	—	81	2	83	646
Woolwich... ..	41,409	2	224	148	—	18	—	392	9·5	—	8	33	4	—	45	1·09	—	1	—	36	2	39	431
Plumstead	61,957	—	373	132	3	25	—	533	8·8	—	6	24	3	—	33	0·54	—	—	4	46	3	53	586
Lee	39,215	1	210	110	—	17	—	338	8·6	—	3	17	3	—	23	0·59	—	—	—	51	1	52	390
Port of London	—	10	15	4	—	9	1	39	—	—	—	—	—	—	—	—	—	—	—	2	—	2	41
Totals	4,463,169	104	22,848	12,803	†389	3,103	4	39,251	8·8	16	778	2,240	557	1	3,592	0·81	1	67	38	5,794	264	6,164	45,415
Percentage of the above cases admitted to the Managers' Hospitals (un-corrected for mistakes in diagnosis) ...)		—	90·38	66·99	51·64	*30·36	50·0	58·26	—	81·25	76·70	44·06	22·26	—	48·14	—	{Percentage of deaths in the Managers' Hospitals.						

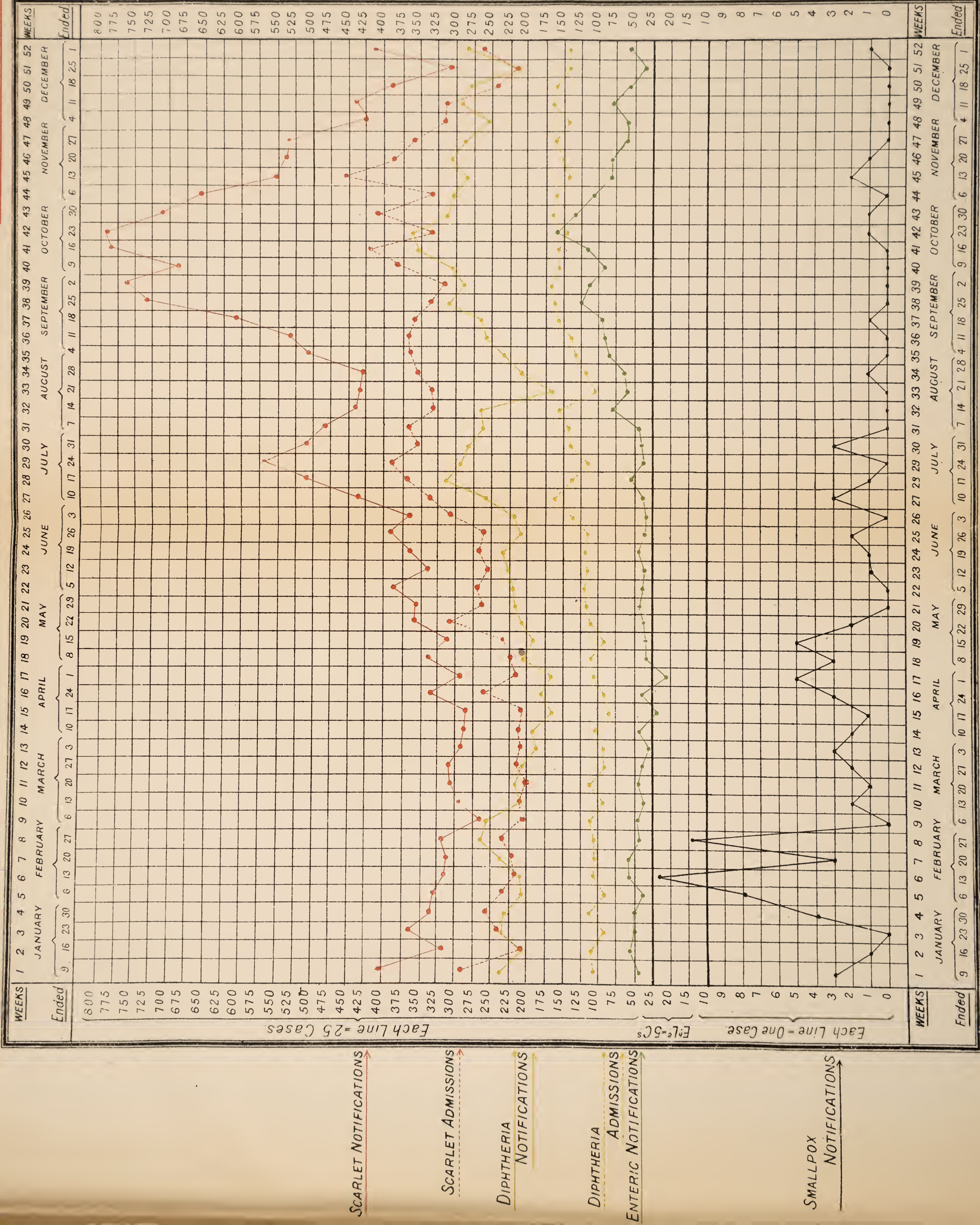
* This does not include 186 cases admitted into general hospitals under arrangements made with those hospitals by the Managers, but if such cases be included the number of admissions will be increased to 1,129, and the percentage to 36·35.

† Only cases of membranous croup which are certified to be of a diphtheritic nature may be admitted into the Board's hospitals.

The first ten lines from bottom represent one case each, the next three lines five cases each, and the remainder 25 cases each.

Cases of Scarlet, Enteric, Diphtheria and Smallpox Notified and cases of Scarlet Fever and Diphtheria admitted during each week of 1897.

The first ten lines from bottom represent one case each, the next three lines five cases each, and the remainder 25 cases each.



and diphtheria after the middle of July indicates the extent to which the hospital accommodation fell short of the requirements of those diseases.

The figures upon which the chart is based are given in table A¹, below.

TABLE A¹.—*Cases of Scarlet Fever and Diphtheria notified, Number admitted, and Percentage of Admissions to Notifications for each week during 1897.*

WEEK ENDED			SCARLET FEVER.			DIPHTHERIA.		
			Notifications.	Admissions.	Percentage of Admissions.	Notifications.	Admissions.	Percentage of Admissions.
	1897.							
1	January	9	402	281	69.90	238	103	43.28
2	"	16	324	204	62.96	211	108	51.18
3	"	23	372	245	65.86	236	93	39.41
4	"	30	341	251	73.61	229	115	50.22
5	February	6	336	238	70.83	205	95	46.34
6	"	13	316	220	69.62	208	104	50.00
7	"	20	313	221	70.61	240	104	43.33
8	"	27	323	232	71.83	263	102	38.78
9	March	6	271	202	74.54	256	112	43.75
10	"	13	298	215	72.15	209	97	46.41
11	"	20	302	200	66.22	224	113	50.45
12	"	27	303	217	71.62	212	90	42.45
13	April	3	298	208	69.80	187	92	49.20
14	"	10	288	212	73.61	195	103	52.82
15	"	17	285	207	72.63	168	82	48.81
16	"	24	334	260	77.84	180	95	52.78
17	May	1	299	220	73.58	172	102	59.30
18	"	8	341	225	65.98	203	107	52.71
19	"	15	314	234	74.52	195	94	48.21
20	"	22	361	307	85.04	206	108	52.43
21	"	29	356	265	74.44	218	121	55.50
22	June	5	388	271	69.85	220	123	55.91
23	"	12	342	252	73.68	225	120	53.33
24	"	19	365	269	73.70	232	122	52.59
25	"	26	390	263	67.44	208	119	57.21
26	July	3	371	304	81.94	224	141	62.95
27	"	10	428	339	79.21	261	162	62.07
28	"	17	512	374	73.05	318	136	42.77
29	"	24	572	391	68.36	299	119	39.80
30	"	31	508	352	69.16	280	139	49.64
31	August	7	490	369	75.30	261	145	55.56
32	"	14	445	331	74.38	269	157	58.36
33	"	21	439	334	75.91	171	101	59.06
34	"	28	429	351	81.82	206	121	58.74
35	September	4	514	365	71.01	233	131	56.22
36	"	11	530	366	69.06	255	139	54.51
37	"	18	608	363	59.70	267	156	58.43
38	"	25	735	337	45.85	309	162	52.43
39	October	2	767	320	41.72	290	164	56.55
40	"	9	685	382	55.77	303	153	50.50
41	"	16	788	421	53.43	351	153	43.59
42	"	23	797	335	42.03	363	149	41.05
43	"	30	710	410	57.75	318	166	52.20
44	November	6	657	336	51.14	303	163	53.80
45	"	13	550	451	82.00	279	148	53.05
46	"	20	544	385	70.77	301	150	49.83
47	"	27	536	360	67.16	286	157	54.90
48	December	4	425	319	75.06	251	145	57.77
49	"	11	440	313	70.81	296	165	56.12
50	"	18	386	247	63.99	277	164	59.21
51	"	25	306	218	71.24	212	141	66.51
52	Jan. 1, 1898		414	264	63.53	280	141	50.18
			22,848	15,256	66.77	12,803	6,592	51.49

From the beginning of the year up to about the middle of July all scarlet fever applicants were being admitted, the average weekly percentage of notified cases admitted being 72·45. From the middle of July to the middle of December it became necessary to refuse admission to a certain proportion of applicants, and the average weekly percentage fell to 62·38.

Towards the end of July the Managers increased the accommodation for diphtheria cases to an extent which, with a few exceptions, met all requirements. In fact, during the first half of the year, when all applicants were being admitted, the average weekly percentage of notified cases admitted was 49·86, as compared with 51·72 during the period when applications were occasionally being refused.

The following table, A², shows the number of cases of infectious disease admissible to the Managers' hospitals which were notified during the years 1890 to 1897:—

TABLE A².—*Number of cases of admissible Diseases* notified during the years from 1890 to 1897.*

YEARS.	Scarlet Fever.	Diphtheria.	Enteric.	Typhus.	Smallpox.	TOTALS.
1890	15,330	5,870	2,877	35	60	24,172
1891	11,398	5,907	3,372	27	114	20,818
1892	27,095	7,781	2,465	20	423	37,784
1893	36,901	13,026	3,663	22	2,813	56,425
1894	18,440	10,655	3,360	21	1,192	33,668
1895	19,757	10,772	3,506	14	979	35,028
1896	25,647	13,362	3,190	6	225	42,430
1897	22,848	12,803	3,103	4	104	38,862

Typhus fever, which at one time was very prevalent in London, has almost disappeared, and both enteric fever and smallpox appear well under control. The most striking feature of the foregoing table, and the least satisfactory, is the sudden increase in the number of diphtheria cases which occurred in 1893, and its steady maintenance since.

The proportion which the hospital admissions bear to the total number of cases is of great importance to the Managers in considering the question of the amount of accommodation which should be provided to meet the wants of the metropolis. In this connection the following table will be of interest:—

TABLE A³.—*Percentage of Admissions to Notifications of each admissible Disease during the years 1890 to 1897.*

DISEASES.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Scarlet Fever ...	42·82	46·84	48·80	39·68	63·94	58·20	62·65	66·99
Diphtheria ...	17·87	25·07	30·19	24·52	38·89	41·55	39·92	51·64
Enteric Fever ...	22·49	27·34	25·27	20·01	20·24	24·13	27·02	30·36
Typhus Fever ...	42·86	70·37	60·00	36·36	61·90	42·86	33·33	50·00

N.B.—These percentages are not corrected for cases of mistaken diagnosis discovered after admission to hospital, and therefore do not correspond exactly with the percentages obtained by taking the corrected admissions as shown in the Fever Statistical Tables on p. 32.

From the point of view of hospital provision, the diseases of greatest interest to the Managers are scarlet fever and diphtheria. So few typhus fever cases now occur that they may be disregarded; and any cases of enteric fever which the Managers may from time to time be unable to accommodate in their own hospitals can generally be received into one or other of the large general hospitals. Smallpox is not included in the table, as it is not dealt with in the infectious hospitals in London, and the considerations which govern the provision to be made for it are essentially different from those which apply to the other diseases.

If we then confine consideration to the two diseases specified, we find that the proportion of scarlet fever admissions has risen from 42·82 to 66·99, and of diphtheria from 17·87 to 51·64. The scarlet fever percentage would have been considerably higher if all patients who sought admission could have been received, as in some weeks during the past year upwards of 80 per cent. of the notified cases were admitted.

SPOTTED
MAPS. Maps spotted to show the distribution of the principal fevers throughout the Metropolis during 1897 will be found in the pocket at the end of this volume.

In all, there are seven maps, dealing with five diseases.

Scarlet Fever cases are spotted on four maps—one for each quarter of the year.

In the *Diphtheria* map, the prevalence of the disease in certain localities is well defined, particularly in Clerkenwell and the eastern and south-eastern districts.

On the *Enteric Fever* map, a few considerable aggregations of cases are apparent, notably in St. Pancras and Poplar.

Smallpox and *Typhus Fever* cases are shown on one map, the former being represented by spots and the latter by crosses. The only considerable outbreak of smallpox occurred in Camberwell.

AGE AND SEX
DISTRIBUTION.

Tables A⁴ and A⁵ exhibit the age and sex of cases notified as scarlet fever and diphtheria respectively during the year. It will be seen that both diseases are most prevalent amongst children ; over two-thirds of the cases being under ten years of age. But whereas scarlet fever is most prevalent amongst children from five to ten years of age, diphtheria is most so amongst those under five years.

TABLE A⁴.—*Ages of cases notified as Scarlet Fever during 1897.*

AGES.						Males.	Females.	Total.
Under 1	...	...	...	...	...	191	190	381
1 to 2	...	...	...	...	...	460	426	886
2 „ 3	...	...	...	...	...	772	815	1,587
3 „ 4	...	...	...	...	...	1,065	1,083	2,148
4 „ 5	...	...	...	...	...	1,137	1,216	2,353
Total under 5	...	...	...	...	...	3,625	3,730	7,355
5 to 10	...	...	...	...	...	4,154	4,840	8,994
10 „ 15	...	...	...	...	...	1,744	2,054	3,798
15 „ 20	...	...	...	...	...	651	594	1,245
20 „ 25	...	...	...	...	...	248	343	591
25 „ 30	...	...	...	...	...	126	212	338
30 „ 35	...	...	...	...	...	69	128	197
35 „ 40	...	...	...	...	...	27	55	82
40 „ 45	...	...	...	...	...	20	30	50
45 „ 50	...	...	...	...	...	13	10	23
50 „ 55	...	...	...	...	...	6	10	16
55 „ 60	...	...	...	...	...	...	5	5
Upwards	...	...	...	...	...	4	4	8
Unrecorded	...	...	...	...	...	62	74	136
Sex unrecorded	...	...	...	...	...	...	...	10
Total	...	...	...	...	...	10,749	12,089	22,848

TABLE A⁵.—*Ages of cases notified as Diphtheria during 1897.*

AGES.						Males.	Females.	Total.
Under 1	...	...	...	...	...	140	140	280
1 to 2	...	...	...	...	...	378	358	736
2 „ 3	...	...	...	...	...	540	515	1,055
3 „ 4	...	...	...	...	...	652	644	1,296
4 „ 5	...	...	...	...	...	577	668	1,245
Total under 5	...	...	...	...	...	2,287	2,325	4,612
5 to 10	...	...	...	...	...	1,844	2,223	4,067
10 „ 15	...	...	...	...	...	687	901	1,588
15 „ 20	...	...	...	...	...	321	449	770
20 „ 25	...	...	...	...	...	181	369	550
25 „ 30	...	...	...	...	...	129	313	442
30 „ 35	...	...	...	...	...	83	191	274
35 „ 40	...	...	...	...	...	54	112	166
40 „ 45	...	...	...	...	...	14	72	86
45 „ 50	...	...	...	...	...	10	40	50
50 „ 55	...	...	...	...	...	10	33	43
55 „ 60	...	...	...	...	...	1	13	14
Upwards	...	...	...	...	...	3	14	17
Unrecorded	...	...	...	...	...	42	77	119
Sex unrecorded	...	...	...	...	...	...	...	5
Total	...	...	...	...	...	5,666	7,132	12,803

Ambulance Work. (2.) The Ambulance Committee's annual report on p. 45 shows that the smaller number of cases of infectious disease in London was balanced by the larger percentage of those cases admitted into hospital, and that consequently the work done by the ambulances was practically equal to that of the preceding year.

For many years three ambulance stations, namely, the Eastern Station at Homerton, the Western Station at Fulham, and the South-Eastern Station at Deptford, were sufficient for the work of the land ambulance service. But the work has increased so much in recent years—and there is every evidence of a still further increase—that the provision of additional ambulance stations became absolutely necessary. The Managers accordingly decided to erect stations adjoining the Brook Hospital, the North-Western Hospital, and the South-Western Hospital. The first named was opened on August 18th, 1896, the second on September 1st, 1897, and the third will be opened early in 1898.

During the year 22,916 (*22,417*)* *fever*, diphtheria, and smallpox patients were conveyed to the various hospitals of the Managers; 8,941 (*9,998*) convalescent patients were transferred to the Northern and Gore Farm Hospitals; and 8,917 (*9,528*) recovered patients were brought back from those hospitals to London. Further, 361 (*433*) private persons were removed on payment to other places than the Managers' hospitals; 752 (*1,287*) were taken from the out-patient departments of general hospitals to their homes, owing to there being no vacant beds in the Managers' hospitals; and 186 (*109*) enteric patients were removed from their homes to the general hospitals, where arrangements for their reception had been made by the Managers.

Altogether, 42,758 (*44,374*) removals were effected by the land ambulance service during 1897, and the various vehicles made 26,055 (*26,646*) journeys, and ran 271,411 (*296,792*) miles.

The steamboats of the river ambulance service conveyed 1,283 (*2,399*) passengers to and from the hospital ships at Long Reach; of that number 69 (*188*) were patients taken to the hospital ships, 55 (*243*) were recovered patients brought back to London, and 1,159 (*1,968*) were visitors, staff, workmen, &c.

Hospital Accommodation. (3.) FEVER AND DIPHTHERIA.—The Park Hospital at Hither Green, Lewisham, which was opened by T.R.H. the Prince and Princess of Wales, began to receive patients on November 8th last. This hospital is designed to accommodate 548 patients. During the current year it is hoped that the Grove Hospital at Tooting will be

* *Italic figures in brackets throughout are the corresponding figures for 1896.*

completed, and that the 520 beds which it will provide may be brought into use. There will then only remain, to complete the Managers' scheme of hospital accommodation as at present laid down, the erection of the Southern Convalescent Hospital, and certain works of reconstruction and enlargement at the Western and North-Eastern Hospitals. The works at the Western Hospital will probably be completed this year. When the last of the above-mentioned works are finished, the Managers will have at their disposal for fever and diphtheria cases (including typhoid fever and isolation cases) upwards of 6,000 beds. In addition there is the Gore Farm Hospital, which can furnish 740 beds for convalescent fever cases, but only so long as it is not required for its proper function of a smallpox convalescent hospital. Though, since 1887, the Managers have practically doubled their fever accommodation, which has now reached a magnitude of which no one dreamed only five years ago, our present report records, for the fifth year in succession, the entire failure of that accommodation to meet all the demands made upon it during the season of greatest pressure.

SMALLPOX.—For this disease the Managers possess 300 beds at the hospital ships, and are about to erect further buildings, capable of containing 400 beds, on the Joyce Green estate, adjoining the hospital ships. Gore Farm, if at any time the Managers are compelled to reclaim it for its original purpose, can, for smallpox convalescents, furnish about 1,192 beds more.

Hospital Statistics. (4.) FEVER.—On the last day of 1896 there were 4,566 (3,500)* patients in the fever hospitals then open.

By May 7th, 1897, the number under treatment had fallen to the minimum, 3,136 (*April 18th, 1896, 3,217*) After that date the number rose until December 9th, when the maximum, 5,023 (*November 2nd, 1896, 4,996*), for the year was attained, and it then declined until the end of the year, when 4,668 (4,566) patients remained under treatment.

The following was the distribution of patients amongst the various hospitals on December 9th:—

HOSPITAL.	BEDS OCCUPIED.					
	Scarlet.	Diphtheria.	Typhus.	Enteric.	Other Diseases.	TOTAL.
Eastern Hospital	103	244	...	20	...	367
North-Eastern Hospital...	424	...	...	...	...	424
North-Western " ...	316	110	...	37	...	463
Western " ...	238	103	...	18	...	359
South-Western " ...	202	88	...	20	...	310
Fountain " ...	240	126	...	...	...	366
South-Eastern " ...	251	142	...	40	...	433
Park " ...	208	19	...	...	...	227
Brook " ...	342	152	...	21	...	515
Northern " ...	790	85	...	...	...	875
Gore Farm " ...	684	...	...	...	...	684
TOTALS 	3,798	1,069	...	156	...	5,023

* Italic figures in brackets throughout are the corresponding figures for 1896.

Tables I. to VIII. and the accompanying chart summarise the several fever hospital tables given on pp. 66 to 91.

TABLE I.—Admissions, Discharges, and Deaths at Fever Hospitals during 1897.

DISEASES.	Re- main- ing on Dec. 31, 1896.	Admitted during 1897.		Total under treatment during 1897.	Discharged during 1897.		Died during 1897.	Mortality per cent.	Re- main- ing on Dec. 31, 1897.
		Direct from homes.	From other Hospitals of Board.		Re- covered.	To other Hospitals of Board.			
Scarlet	3,685	15,113	8,072	18,798	14,631	8,072	619	4·07	3,518
Diphtheria	724	5,673	752	6,397	4 498	752	9·7	17·69	912
Enteric	108	664	...	772	542	...	124	18·64	106
Typhus	1	2	...	3	3	...	...	...	...
Totals	4,518	21,452	8,824	25,970	19,674	8,824	1,730	8·07	4 566
Other diseases ...	48	1,417	...	1,465	1 223	...	140	10·07	102
Grand Totals	4,566	22,869	8,824	27,435	20,897	8,824	1,870	8·19	4,668

NOTES.—The mortalities returned as above include all deaths occurring from intercurrent diseases, particulars of which will be found in the Annual Reports of the Medical Superintendents.

The mortality rates are calculated according to the Registrar-General's Formula—i.e., by dividing the Deaths, multiplied by 100, by half the sum of the Admissions, Discharges, and Deaths for the year.

Cases of enteric fever admitted into general hospitals under arrangements made with those hospitals by the Managers are not included in this table. If they were, the number of admissions would be increased by 186.

The total number of patients treated during the year was greater than in any previous year, but the death rate (8·19) is the lowest on record. This is the more satisfactory as the increase in the number treated was mainly of diphtheria cases.

TABLE II.—Monthly Admissions, Discharges, and Deaths at Fever Hospitals during 1897.

MONTH.	ADMISSIONS.										DISCHARGES.		DEATHS.
	Scarlet.		Diphtheria.		Enteric.		Typhus.	Other Diseases.		Total (acute cases).	Recovered.	To other Hospitals of Board.	
	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.		Direct from Homes.	From other Hospitals of Board.				
Jan. ...	1,063	532	412	45	49	...	...	71	...	1,595	1,743	577	164
Feb. ..	897	499	362	55	46	...	...	90	...	1,395	1,793	554	124
March	933	285	426	66	38	...	...	79	...	1,476	1,671	351	124
April	933	438	354	58	18	..	...	87	...	1,392	1,520	496	110
May ...	1,095	457	419	73	22	...	..	115	...	1,651	1,325	530	138
June ...	1,142	489	438	68	31	...	1	146	...	1,758	1,301	557	106
July ...	1,549	871	557	66	47	...	...	134	...	2,287	1,726	936	178
Aug. ...	1,513	874	509	78	89	...	...	126	...	2,237	1,543	952	169
Sept. ...	1,499	965	518	71	97	...	...	126	..	2,240	1,903	1,036	166
Oct. ...	1,659	1,036	542	60	90	...	...	166	...	2,457	2,292	1 097	176
Nov. ...	1,667	935	559	94	75	...	1	143	...	2,445	2,050	1,029	193
Dec. ...	1,163	691	577	18	62	...	...	134	...	1,936	2,030	709	222
Totals	15,113	8,072	5,673	752	664	...	2	1,417	..	22,869	20,897	8,824	1,870

The total monthly admissions were lowest in April, and highest in October.

The accompanying chart shows the monthly admissions of each kind of fever from and including the year 1887.

During the twenty-six years which have elapsed since the first of the Managers' fever hospitals was opened, the scarlet fever admissions fell to the minimum for the year nine times in February, four times in March, seven times in April, four times in June, once in September, and once in December (1888); while the maximum number of admissions was reached once in January (1888), twice in July, four times in September, eleven times in October, six times in November, and twice in December. The enteric fever admissions fell to the minimum for the year three times in March, eight times in April, seven times in May, seven times in June, and once in July; and rose to the maximum once in May, four times in September, twelve times in October, eight times in November, and once in December.

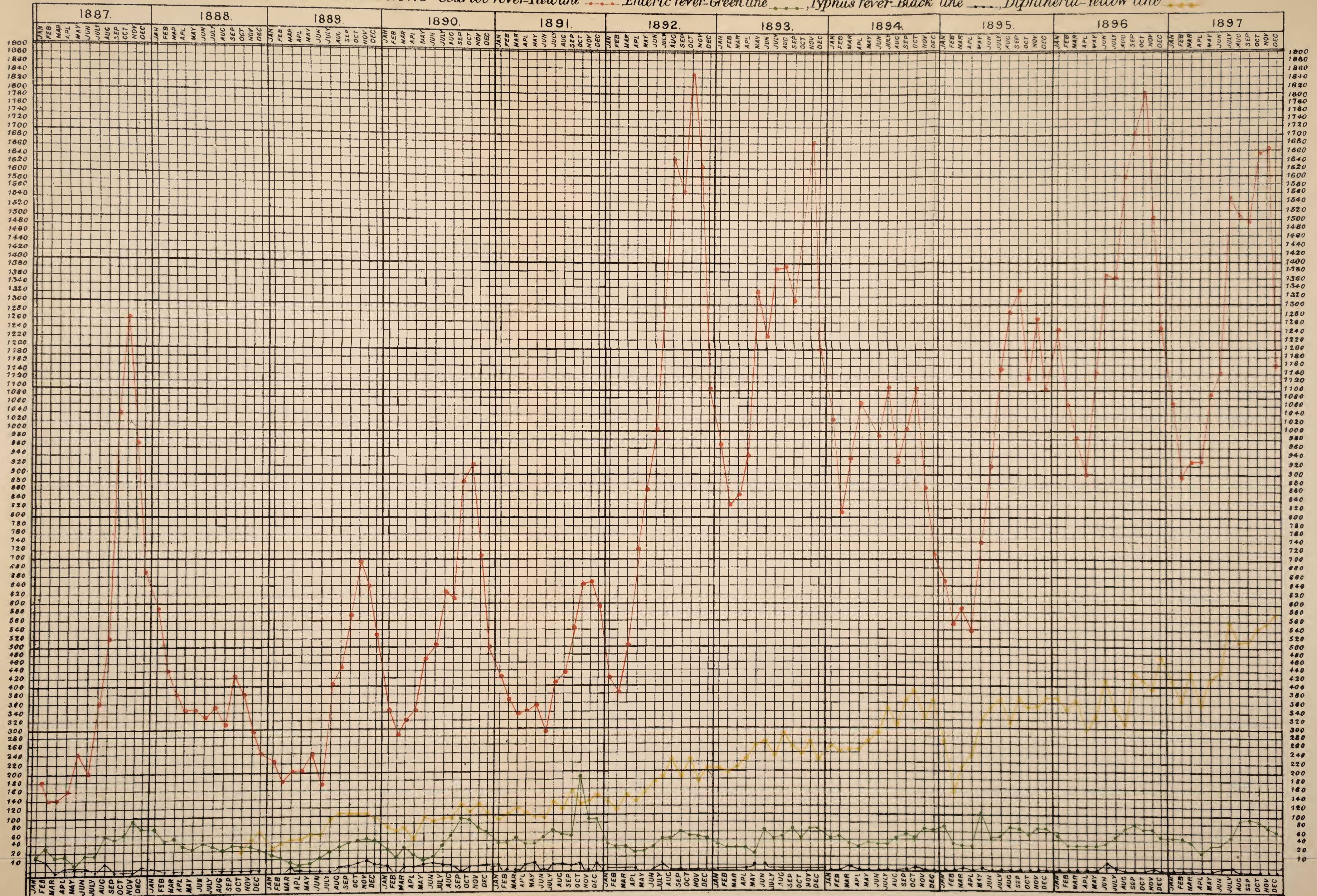
The only two cases of typhus fever admitted were both notified as enteric fever patients.

Diphtheria cases were not admitted to the Managers' hospitals until October 23rd, 1888. Since then the minimum admissions have occurred twice in January, four times in February, and three times in April; while the maximum admissions took place once in July, once in August, twice in September, once in October, twice in November, and twice in December.

The maxima of scarlet fever, diphtheria, and enteric fever admissions must not, however, be regarded as indicating with accuracy the greatest seasonal prevalence of these diseases, for the reason that on several occasions the accommodation in the Managers' hospitals became completely exhausted, and consequently any further rise in the number of admissions was impossible.

METROPOLITAN ASYLUMS BOARD.

FEVER CHART- MONTHLY ADMISSIONS-Scarlet fever-Red line Enteric fever-Green line Typhus fever-Black line Diphtheria-Yellow line



NOTE. — Diphtheria cases were not admitted into the Board's Hospitals until the 23rd October, 1888.

TABLE III.—*Admissions and Deaths of Patients at Fever Hospitals during 1897, divided according to Parishes or Unions.*

PARISH OR UNION.	Scarlet.	Diphtheria.	Enteric.	Typhus.	Other Diseases.	Total Admissions.	Total Deaths.
Kensington	538	191	27	...	35	791	75
Fulham	779	250	14	...	36	1,079	78
Paddington	354	186	10	...	21	571	59
Chelsea	388	183	10	...	29	610	61
St. George's, Hanover Square ...	300	113	10	...	18	441	32
Westminster... ..	217	44	2	..	18	281	15
St. Marylebone	321	111	23	...	32	487	40
St. Pancras	687	232	31	...	59	1,009	78
Hampstead	110	33	...	...	4	147	12
Islington	978	293	64	...	72	1,407	112
Hackney	793	284	52	...	66	1,195	99
St. Giles & St. George, Bloomsbury	155	19	3	..	13	190	11
Strand	66	18	6	...	6	96	6
Holborn	635	369	39	...	77	1,120	84
London, City of	68	29	2	...	11	110	7
Shoreditch	486	163	28	...	69	746	77
Bethnal Green	423	170	18	...	73	684	57
Whitechapel	365	147	12	...	61	585	32
St. George-in-the-East	161	82	8	1	20	272	23
Stepney	298	95	14	...	37	444	27
Mile End Old Town	374	145	9	...	50	578	37
Poplar	452	192	31	...	73	748	63
St. Saviour's... ..	959	343	39	...	113	1,454	115
St. Olave's	630	199	24	1	56	910	100
Lambeth	893	293	42	...	72	1,300	103
Wandsworth and Clapham ...	1,729	487	51	...	94	2,361	177
Camberwell	603	482	26	...	69	1,180	144
Greenwich	494	205	48	...	68	815	74
Woolwich	424	180	14	...	31	649	42
Lewisham	268	116	4	...	22	410	23
Port and Tower of London ...	1	...	...	...	...	1	...
Tottenham	162	16	3	...	11	192	7
Beyond Metropolitan Area ...	2	3	...	...	1	6	...
Totals	15,113	5,673	664	2	1,417	22,869	1,870

SCARLET FEVER.—TABLE IV^A.—*Admissions, Deaths, and Mortality per cent. of Scarlet Fever Patients during 1897, divided according to age and sex.*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1 ...	93	17	18·3	86	22	25·6	179	39	21·8
1 to 2 ...	282	51	18·1	292	37	12·7	574	88	15·3
2 ,, 3 ...	555	68	12·3	558	47	8·4	1,113	115	10·3
3 ,, 4 ...	736	67	9·1	746	65	8·7	1,482	132	8·9
4 ,, 5 ...	779	41	5·3	813	31	3·8	1,592	72	4·5
Totals under } 5 years ... }	2,445	244	10·0	2,495	202	8·1	4,940	446	9·0
5 to 10 ...	2,826	53	1·8	3,206	77	2·4	6,032	130	2·2
10 ,, 15 ...	1,270	17	1·3	1,362	6	0·4	2,632	23	0·9
15 ,, 20 ...	430	5	1·2	382	3	0·8	812	8	1·0
20 ,, 25 ..	156	4	3·1	186	1	0·7	342	5	1·7
25 ,, 30 ...	71	1		101	...		172	1	
30 ,, 35 ...	33	1		70	1		103	2	
35 ,, 40 ...	17	...		21	...		38	...	
40 ,, 45 ...	7	3		15	...		22	3	
45 ,, 50 ...	7	...	3·1	6	1	0·7	13	1	1·7
50 ,, 55 ...	3	...		3	...		6	...	
55 ,, 60 ...	...	...		...	...		...	...
And upwards	...	...		1	...		1	...	
Grand Totals	7,265	328	4·5	7,848	291	3·7	15,113	619	4·1

N.B.—The above table includes deaths within 48 hours after admission, as well as deaths from intercurrent maladies.

The total admissions of scarlet fever cases in 1897 were 15,113, as compared with 15,982 in 1896: the female were 583 in excess of the male admissions. The total mortality, calculated on the admissions, was 4·06 per cent., as compared with 4·2 in 1896.

The following table is compiled from the Summary Tables since 1892, the year when the Public Health (London) Act, 1891, came into operation, permitting the admission, free of charge, of any person reasonably believed to be suffering from fever, diphtheria, or smallpox.

TABLE IV^B.—*Admissions, Deaths, and Mortality per cent. of Scarlet Fever Patients in the years 1892 to 1897, divided according to age and sex.*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1... ..	443	110	24·8	362	98	27·1	805	208	25·8
1 to 2... ..	1,456	298	20·5	1,371	280	20·4	2,827	578	20·4
2 ,, 3... ..	2,631	406	15·4	2,553	383	15·0	5,184	789	15·2
3 ,, 4... ..	3,599	404	11·2	3,688	417	11·3	7,287	821	11·3
4 ,, 5	3,862	314	8·1	4,140	281	6·8	8,002	595	7·4
Totals under } 5 years }	11,991	1,532	12·8	12,114	1,459	12·0	24,105	2,991	12·4
5 to 10... ..	15,791	495	3·1	17,592	523	3·0	33,383	1,018	3·0
10 ,, 15... ..	7,359	97	1·3	7,862	85	1·1	15,221	182	1·2
15 ,, 20... ..	2,366	36	1·5	2,368	35	1·5	4,734	71	1·5
20 ,, 25	926	11	1·2	1,149	20	1·7	2,075	31	1·5
25 ,, 30... ..	420	5	1·2	657	7	1·1	1,077	12	1·1
30 ,, 35... ..	215	6	2·8	343	6	1·7	558	12	2·2
35 ,, 40... ..	91	2	2·2	140	3	2·1	231	5	2·2
40 ,, 45... ..	45	4	7·4	80	3	3·1	125	7	5·0
45 ,, 50... ..	26	2		23	1		49	3	
50 ,, 55... ..	17	1		17	...		34	1	
55 ,, 60... ..	5	...		4	...		9	...	
And upwards	1	...		3	...		4	...	
Grand Totals...	39,253	2,191	5·6	42,352	2,142	5·1	81,605	4,333	5·3

N.B.—The above table includes deaths within 48 hours after admission, as well as deaths from intercurrent maladies.

The relation of age and sex to mortality is clearly indicated by the above table. The disease is most fatal to children under five years of age, and notably so to infants in the first and second years of life. More females than males have been admitted, but the mortality per cent. amongst the latter is greater than amongst the former by 0·5.

DIPHTHERIA.—TABLE V^A.—*Admissions, Deaths, and Mortality per cent. of Diphtheria Patients during 1897, divided according to age and sex.*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1 ...	56	15	26·8	43	17	39·5	99	32	32·3
1 to 2 .	206	67	32·5	165	51	30·9	371	118	31·8
2 ,, 3 ...	257	72	28·0	292	76	26·0	549	148	27·0
3 ,, 4 ..	355	84	23·7	354	78	22·0	709	162	22·9
4 ,, 5 ...	310	70	22·6	378	73	19·3	688	143	20·8
Total under 5 years }	1,184	308	26·0	1,232	295	23·9	2,416	603	25·0
5 to 10 ...	889	154	17·3	1,073	169	15·7	1,962	323	16·5
10 ,, 15 ...	310	19	6·1	378	14	3·7	688	33	4·8
15 ,, 20 ...	100	3	3·0	145	3	2·1	245	6	2·4
20 ,, 25 ...	50	4	8·0	92	2	2·2	142	6	4·2
25 ,, 30 ...	23	2	7·4	69	1	7·2	92	3	7·3
30 ,, 35 ...	23	2		38	7		61	9	
35 ,, 40 ...	13	1		22	3		35	4	
40 ,, 45 ...	6	...		12	...		18	...	
45 ,, 50 ...	2	...		4	...		6	...	
50 ,, 55 ...	1	...	7·4	3	...	7·2	4	...	7·3
55 ,, 60 ...	...	...		4	...		4	..	
And upwards	...	...		...	...		...	...
Grand Totals	2,601	493	19·0	3,072	494	16·1	5,673	987	17·4

N.B.—The above table includes deaths within 48 hours after admission, as well as deaths from intercurrent maladies.

The total admissions were greater in number by 1,165 cases than in 1896, and the death rate, 17·4 per cent., was 3·6 below that of the previous year, and was the lowest on record.

The following table is compiled from the Summary Tables in this and the previous Annual Reports since 1888, in which year diphtheria cases were first admitted to the Managers' hospitals:—

TABLE V^B.—*Admissions, Deaths, and Mortality per cent. of all Diphtheria Patients in the years 1888 to 1897, divided according to age and sex :—*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1 ...	239	115	48·1	196	103	52·6	435	218	50·1
1 to 2 ...	819	411	50·2	729	368	50·5	1,548	779	50·3
2 „ 3 ...	1,101	466	42·3	1,120	440	39·3	2,221	906	40·8
3 „ 4 ...	1,486	545	36·7	1,485	503	33·9	2,971	1,048	35·3
4 „ 5 ...	1,423	432	30·4	1,662	517	31·1	3,085	949	30·8
Totals under } 5 years }	5,068	1,969	38·9	5,192	1,931	37·2	10,260	3,900	38·0
5 to 10 ...	3,978	850	21·4	4,720	1,094	23·2	8,698	1,944	22·3
10 „ 15 ...	1,265	110	8·7	1,695	144	8·5	2,960	254	8·6
15 „ 20 ...	497	26	5·2	817	34	4·2	1,314	60	4·6
20 „ 25 ...	297	14	4·7	562	20	3·6	859	34	4·0
25 „ 30 ...	182	12	6·6	405	13	3·2	587	25	4·3
30 „ 35 ...	119	4	3·4	222	14	6·3	341	18	5·3
35 „ 40 ...	67	4	6·0	118	5	4·2	185	9	4·9
40 „ 45 ...	37	3	15·0	58	5	12·3	95	8	13·3
45 „ 50 ...	19	1		34	4		53	5	
50 „ 55 ...	15	4		14	2		29	6	
55 „ 60 ...	6	2		15	1		21	3	
And upwards	3	2		9	4		12	6	
Grand Totals	11,553	3,001	26·0	13,861	3,271	23·6	25,414	6,272	24·7

N.B.—The above table includes deaths within 48 hours after admission, as well as deaths from inter-current maladies.

Diphtheria, like scarlet fever, is most fatal to infant children. The maximum mortality occurs in the first two years of life, when it reaches the high percentage of 50·27, subsequently falling with every additional year of life to the minimum of 3·84 per cent. amongst persons between 20 and 25 years of age.

The mortality per cent. of females is less than that of males by 2·39.

ENTERIC FEVER.—TABLE VI^A.—*Admissions, Deaths, and Mortality per cent. of Enteric Fever Patients during 1897, divided according to age and sex :—*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 5 ...	7	1	14·3	7	...	...	14	1	7·1
5 to 10 ...	58	5	8·6	46	3	6·5	104	8	7·7
10 „ 15 ...	76	7	9·2	61	6	9·8	137	13	9·5
15 „ 20 ...	50	14	28·0	46	6	13·0	96	20	20·8
20 „ 25 ...	54	13	24·1	47	6	12·8	101	19	18·8
25 „ 30 ...	57	16	28·1	40	13	32·5	97	29	29·9
30 „ 35 ...	26	10	38·5	27	8	29·6	53	18	34·0
35 „ 40 ...	15	5	33·3	18	4	22·2	33	9	27·3
40 „ 45 ...	11	2	18·2	5	2	40·0	16	4	25·0
45 „ 50 ...	1	...	...	4	...	33·3	5	...	23·1
50 „ 55 ...	...	...		3	1		3	1	
55 „ 60 ...	2	...		...	...		2	...	
And upwards	...	...		3	2		3	2	
Totals ...	357	73	20·4	307	51	16·6	664	124	18·7

N.B.—The above table includes deaths within 48 hours after admission, as well as deaths from inter-current maladies. It does not include Board’s cases admitted into general hospitals.

There were 64 more cases of enteric fever admitted than during 1896, and the total death rate was 2·5 per cent. higher than in that year.

The following table is compiled from the Summary Tables in this and previous Annual Reports :—

TABLE VI^B.—*Admissions, Deaths, and Mortality per cent. of Enteric Fever patients in the years 1871 to 1897. (See note (2) below.)*

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 5 ...	185	23	12·4	155	21	13·6	340	44	12·9
5 to 10 ...	762	70	9·2	718	61	8·5	1,480	131	8·9
10 „ 15 ...	1,369	144	10·5	1,153	183	15·9	2,522	327	13·0
15 „ 20 ...	1,256	192	15·3	1,139	228	20·0	2,395	420	17·5
20 „ 25 ..	860	186	21·6	806	152	18·9	1,666	338	20·3
25 „ 30 ...	656	161	24·5	536	112	20·9	1,192	273	22·9
30 „ 35 ...	376	108	28·7	334	69	20·7	710	177	24·9
35 „ 40 ...	191	58	30·4	217	53	24·4	408	111	27·2
40 „ 45 ...	118	30	25·4	103	25	24·3	221	55	24·9
45 „ 50 ...	55	24	43·6	69	16	23·2	124	40	32·3
50 „ 55 ...	24	10	43·2	30	6	28·3	54	16	35·6
55 „ 60 ...	12	6		8	4		20	10	
And upwards	8	3		8	3		16	6	
Grand Totals	5,872	1,015	17·3	5,276	933	17·7	11,148	1,948	17·5

N.B.—(1) The above table includes deaths within 48 hours after admission, as well as deaths from intercurrent maladies.

(2) The total number does not correspond with Table VIII., p. 32, because there are excluded from this table a number of patients who were admitted into hospitals which also received convalescent patients from other hospitals, and in taking the ages of patients for the purposes of this table, it was impossible from the returns in the possession of the Committee to identify the two classes.

The number of cases of enteric fever under five years of age is comparatively small.

The lowest death rate is amongst patients between 5 and 10 years of age; it then increases with each quinquennium, until it attains a percentage of 32·26 amongst patients between 45 and 50 years of age and of 35·56 amongst the patients of ages from 50 to 60 and upwards.

The male sex is evidently more liable to attack by this disease; but the female mortality per cent. is greater by 0·36. There are striking variations in the relative mortality in the sexes at different age-periods. Between the ages of 10 and 20 the death rate is much greater amongst females, but the case is entirely reversed in all later age-periods.

Only two cases of typhus fever were admitted during the year 1897 and they are included in the following table:—

TYPHUS FEVER.—TABLE VII.—*Admissions, Deaths, and Mortality per cent. of Typhus Fever patients in the years 1871 to 1897 inclusive, divided according to age and sex. (See note (2) below.)*

AGES.	MALES.			FEMALES.			TOTAL.		
	Cases Admitted.	Died.	Mortality per cent.	Cases Admitted.	Died.	Mortality per cent.	Cases Admitted.	Died.	Mortality per cent.
Under 5 ...	40	1	2·5	48	1	2·1	88	2	2·3
5 to 10 ...	108	1	0·9	139	—	—	247	1	0·4
10 „ 15 ...	172	5	2·9	207	11	5·3	379	16	4·2
15 „ 20 ...	165	10	6·1	198	18	9·1	363	28	7·7
20 „ 25 ...	125	28	22·4	124	22	17·7	249	50	20·1
25 „ 30 ...	77	21	27·3	83	15	18·1	160	36	22·5
30 „ 35 ..	76	25	32·9	85	22	25·9	161	47	29·2
35 „ 40 ..	57	26	45·6	76	21	27·6	133	47	35·3
40 „ 45 ...	75	46	61·3	95	35	36·8	170	81	47·6
45 „ 50 ...	43	21	48·8	55	21	38·2	98	42	42·9
50 „ 55 ...	23	16	69·6	38	21	55·3	61	37	60·7
55 „ 60 ...	14	9	64·3	18	15	83·3	32	24	75·0
And upwards	17	13	76·5	22	15	68·2	39	28	71·8
Totals ...	992	222	22·4	1,188	217	18·3	2,180	439	20·1

N.B.—(1) The above table includes deaths within 48 hours after admission, as well as deaths from intercurrent maladies.

(2) The total number does not correspond with Table VIII., p. 32, for similar reasons to those given in note (2) to Table VI.B., on p. 28.

Young children appear to be less liable to attack by typhus fever than adolescents or adults. At all ages more females than males have been admitted. The death rate of females per cent. is less by 4·1 than that of males. The mortality in both sexes is greatly influenced by age. Up to the twentieth year the rate does not exceed 7·7 per cent.; but in the quinquennium 20 to 25 it suddenly rises to 20·2 per cent., and thenceforward rapidly increases with advancing age, up to the age of 60 years.

SMALLPOX. Table I. on p. 98 shows the number of smallpox patients admitted from each parish or union during each month of the year 1897, and the total admissions for the year. It also shows the total deaths and discharges, and the number remaining under treatment at the beginning and end of the year.

The total number of smallpox cases admitted was 70, which, together with one remaining at the beginning of the year, made a total of 71 treated during the year. Of this number 13 died, and the remainder were discharged. But, in addition to these numbers, there were of non-smallpox cases two admitted to the hospital ships, 24 detained at the observation shelters at South Wharf (one of whom died there and another remained under treatment at the end of the year), and 26 were returned direct to their homes.

Full information as to the cases admitted to the hospital ships will be found in the report of the Medical Superintendent, Dr. Ricketts, on pp. 94-5, and as to the cases detained at the South Wharf shelters in the report of the Medical Officer of the River Service, Dr. Brooke, on pp. 92-3.

Tables IIA., IIB., and IIC., on pp. 99-110, supply detailed particulars concerning the vaccination of the smallpox patients admitted.

Table IIC. (which is a combination of Tables IIA. and IIB.) shows that vaccination cicatrices were present in 53 cases, of whom five died. In four cases there was "no evidence" as to cicatrices—(these were either cases said to have been vaccinated, but bearing no visible evidence of the operation, or else cases in which no statement was made and the eruption or other cause prevented the observation of any marks)—three of these died; in 13 cases vaccination cicatrices were absent, four of these died, as did also one case which remained in hospital at the end of 1896.

CASES OF MISTAKEN DIAGNOSIS. *Fever.*--In the course of the year 1897 no fewer than 1,417 (1,174) patients, or a percentage on the total admissions of 6.02 (5.3),* were, after admission at the fever hospitals, found not to be suffering from the diseases mentioned in the medical certificates upon which they were removed to hospital. The largest number of cases thus admitted to any one hospital was, as in previous years, at the Eastern Hospital, where the proportion was 329 (253) out of 3,074 (3,174) admissions, or 10.7 (7.9) per cent. of the total. As regards scarlet fever cases the percentage was 3.1 (2.2), diphtheria cases 11.3 (11.1), and enteric fever cases 44.1 (28.7).

Amongst the 466 cases wrongly certified as scarlet fever, there were 62 (74) of measles, 113 (58) of tonsillitis, and 66 (81) had no obvious disease. Amongst the 643 cases wrongly certified as diphtheria were 31 (33) of

* Italic figures in brackets throughout are the corresponding figures for 1896.

measles and 511 (447)* of tonsillitis. Amongst the 293 (242) cases wrongly certified as enteric fever were 4 (12) of bronchitis and 61 (47) of lobar pneumonia.

Smallpox.—Of the patients admitted to the smallpox hospital ships, 2 (6) were not suffering from smallpox at the time of admission. Particulars of these cases are given in the report of the Medical Superintendent, on p. 94.

From these figures it appears that the number of patients admitted to the smallpox ships through mistaken diagnosis was only 2·8 (3·1) per cent.

It must be remembered, however, that in the case of smallpox the original medical certificate is checked by the examination of a medical officer of the Board at the London wharves, except in the case of local patients from Erith and Dartford. If therefore we take the total number of cases originally certified in London as smallpox and removed to the wharves, we find that the mistaken diagnoses numbered 52 (76) out of 121 (265), or 42·9 (28·7) per cent.; and these are the figures properly to be compared with those given above in the case of fever.

Statistics since Establishment of the Managers' Hospitals. (5.) FEVER.—The return on p. 32 shows the annual admissions and deaths of patients at the Managers' fever hospitals, with the mortality per cent. since the establishment of the first hospital in 1870, together with extracts from the Registrar-General's annual summaries showing the annual mortality per 1,000 persons living of the population of the Metropolis from scarlet, typhus, and enteric fevers and diphtheria.

The decreasing percentage of the mortality amongst scarlet fever patients treated in the Managers' hospitals continues to be a noticeable feature.

Equally noticeable is the decline in the percentage mortality amongst diphtheria patients from 40·74 in 1889 to 29·29 in 1894; to 22·85 in 1895 (when the antitoxic serum treatment was first adopted); to 21·2 in 1896, and 17·69 in 1897.

* Italic figures in brackets throughout are the corresponding figures for 1896.

TABLE VIII.—Showing the Admissions and Deaths of Patients and Mortality per cent. at the Managers' FEVER HOSPITALS during each Year since the opening of the first Hospital on January 25th, 1870, together with the Annual Mortality per 1,000 persons living of the Population of the Metropolis from Scarlet, Typhus, and Enteric Fevers, and Diphtheria, extracted from the Registrar-General's Annual Summaries.

YEAR.		ADMISSIONS.					DEATHS.					Mortality per cent. of Patients treated in Managers' Hospitals.				Annual Mortality per 1,000 of estimated Population.			
		Scarlet.	Diphtheria	Typhus.	Enteric.	Other Diseases.	Total.	Scarlet.	Diphtheria	Typhus.	Enteric.	Scarlet Fever.	Diphtheria	Typhus.	Enteric.	Scarlet.	Diphtheria	Typhus.	Enteric.
1871	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.58	0.11	0.12	0.27
1872	(15 months to Dec. 31st, 1872)...	108	...	134	279	343	864	11	...	30	57	10.78	...	23.62	21.96	0.28	0.08	0.05	0.24
1873	...	92	...	401	381	271	1,145	6	...	91	56	6.55	...	23.15	15.13	0.19	0.09	0.08	0.27
1874	...	804	...	536	435	359	2,134	89	...	106	63	12.15	...	19.62	14.87	0.77	0.12	0.09	0.26
1875	...	1,182	...	65	299	269	1,815	160	...	16	78	13.69	...	23.35	24.68	1.06	0.17	0.04	0.23
1876	...	671	...	139	288	294	1,392	90	...	28	59	12.13	...	19.31	20.34	0.65	0.11	0.04	0.22
1877	...	479	...	170	372	186	1,207	54	...	36	79	12.10	...	23.07	22.93	0.44	0.09	0.04	0.25
1878	...	679	...	168	484	233	1,564	91	...	47	100	14.34	...	26.25	20.26	0.49	0.15	0.04	0.28
1879	...	1,469	...	48	385	196	2,098	211	...	11	74	15.27	...	21.56	19.73	0.72	0.15	0.02	0.23
1880	...	1,949	...	28	248	239	2,464	242	...	6	43	12.30	...	20.68	15.63	0.82	0.14	0.02	0.19
1881	...	1,477	...	219	415	211	2,322	168	...	34	86	11.10	...	16.95	21.47	0.55	0.17	0.02	0.25
1882	...	1,850	...	148	515	354	2,867	189	...	27	104	10.37	...	16.92	20.71	0.52	0.22	0.01	0.25
1883	...	1,920	...	45	486	269	2,720	234	...	11	74	12.38	...	21.15	15.64	0.51	0.24	0.01	0.25
1884	...	1,845	...	29	493	180	2,547	234	...	5	98	12.27	...	20.00	18.82	0.36	0.24	0.01	0.23
1885	...	1,353	...	53	220	229	1,855	130	...	7	36	9.47	...	12.17	15.82	0.18	0.23	0.01	0.15
1886	...	1,780	...	10	333	74	2,197	151	...	4	47	9.04	...	42.10	14.85	0.17	0.21	0.00	0.15
1887	...	5,900	...	35	441	161	6,537	489	...	4	61	9.54	...	11.59	14.59	0.36	0.23	0.00	0.15
1888	...	4,408	99	1	450	194	5,152	501	46	...	72	9.89	59.35	...	14.64	0.30	0.32	0.00	0.17
1889	...	4,518	722	23	290	219	5,772	366	275	6	41	8.85	40.74	31.57	15.15	0.19	0.39	0.00	0.13
1890	...	6,537	942	16	498	341	8,334	510	316	5	93	7.86	33.55	25.66	19.68	0.21	0.33	0.00	0.15
1891	...	5,262	1,312	18	755	462	7,809	357	397	1	106	6.67	30.63	5.88	14.52	0.14	0.34	0.00	0.13
1892	...	13,093	2,009	19	430	725	16,276	839	583	2	65	7.28	29.35	9.76	13.20	0.27	0.46	0.00	0.10
1893	...	14,548	2,848	2	544	732	18,674	901	865	1	110	6.11	30.42	50.00	20.54	0.37	0.76	0.00	0.16
1894	...	11,598	3,666	6	534	863	16,667	717	1,035	1	96	5.92	29.29	16.67	18.13	0.22	0.62	0.00	0.15
1895	...	11,271	3,635	3	661	1,277	16,847	591	820	...	119	5.45	22.85	...	18.17	0.19	0.54	0.00	0.14
1896	...	15,982	4,508	9	600	1,174	22,273	666	948	2	96	4.29	21.29	25.0	15.84	0.21	0.60	0.00	0.13
1897	...	15,113	5,673	2	664	1,417	22,869	619	987	...	124	4.07	17.69	...	18.64	0.18	0.51	0.00	0.12
Totals	...	125888	25,414	2 327	11,500	11,272	176401	8,616	6,272	481	2,037	6.94	25.13	20.69	17.79	...	...	...	...

NOTE.—1. From December 1st, 1870, to the end of September, 1871 Smallpox cases only were admitted to the Board's Hospitals.
2. The deaths of Fever patients include all cases dying within 48 hours after admission, and also those deaths due to intercurrent maladies.
3. Diphtheria cases have only been admitted into the Managers' Hospitals since October 23rd, 1888.
4. The Mortality rates of patients in the Managers' Hospitals are calculated according to the Registrar-General's formula.

SMALLPOX. (6.) The following table shows the admissions and deaths of patients in the Managers' smallpox hospitals during each year since the opening of the first hospital at the end of 1870.

TABLE IX.—Admissions, Deaths, and Mortality per cent. of Smallpox Patients since December 1st, 1870, together with the Annual Mortality per 1,000 persons living of the Population of the Metropolis from Smallpox, extracted from the Registrar-General's Annual Summaries.

YEAR.	ADMISSIONS.			DEATHS.			Mortality per cent. of Patients treated in Managers' Hospitals.	Total Annual Mortality per 1,000 of estimated Popula- tion.
	Smallpox.	Other Diseases.	Total.	Smallpox.	Other Diseases.	Total.	Smallpox.	Smallpox.
Dec. 1st, 1870, to Feb. 3rd, 1871...	582	...	582	97	...	97	20·81	...
1871-2 (Feb. 4th, 1871, to Jan. 31st, 1872) ...	13,139	6	13,145	2,460	...	2,460	18·95	2·42
1872-3 (year ended Jan. 31st, 1873)	2,359	3	2,362	467	1	468	17·84	0·54
1873-4 (year ended Jan. 31st, 1874)	174	17	191	35	..	35	17·02	0·03
1874 (11 months ended Dec. 31st)	112	8	120	10	...	10		0·02
1875	89	22	111	22	...	22		0·01
1876	2,134	16	2,150	372	1	373	21·64	0·21
1877	6,516	104	6,620	1,214	4	1,218	17·92	0·71
1878	4,558	96	4,654	824	9	833	17·99	0·39
1879	1,628	60	1,688	273	5	278	15·69	0·12
1880	1,982	50	2,032	286	2	288	15·95	0·12
1881	8,551	120	8,671	1,417	14	1,431	16·61	0·62
1882	1,799	55	1,854	260	3	263	12·96	0·11
1883	598	28	626	93	...	93	16·06	0·03
1884	6,363	204	6,567	940	3	943	15·98	0·31
1885	6,146	198	6,344	1,052	3	1,055	15·80	0·35
1886	99	33	132	22	2	24	14·28	0·01
1887	56	3	59	3	...	3		0·00
1888	62	5	67	8	...	8		0·00
1889	5	...	5	..	...	...		...
1890	22	5	27	3	...	3		0·00
1891	63	1	64	8	...	8	11·29	0·00
1892	325	*23	348	35	...	35		0·01
1893	2,376	*118	2,494	180	2	182		0·05
1894	1,117	*120	1,237	102	7	109	8·87	0·02
1895	941	*81	1,022	64	1	65	6·36	0·01
1896	190	*41	231	9	1	10	4·01	0·00
1897	70	*26	96	13	1	14	18·44	0·00
Totals	62,056	*1,443	63,499	10,269	59	10,328	16·55	...

* Most of these were patients who were detained for observation at South Wharf.

The following table is founded on the returns of the Registrar-General, and will be of interest to the Managers in relation to the history of smallpox in the Metropolis:—

YEARS.	Estimated Population in the Middle of each Year.	DEATHS FROM SMALLPOX.		
		Annual Total.	Annual Rate per Million of Population.	Rate per Million on Averages of Five Years.
1838	1,766,169	3,817	2,161	—
1839	1,802,751	634	352	—
1840	1,840,091	1,235	671	—
1841	1,878,205	1,053	561	—
1842	1,917,108	360	188	787
1843	1,954,041	438	224	399
1844	2,033,816	1,804	887	506
1845	2,073,298	909	438	460
1846	2,113,535	257	122	372
1847	2,202,673	955	434	421
1848	2,244,837	1,620	722	521
1849	2,287,302	521	228	389
1850	2,330,054	499	214	344
1851	2,373,081	1,062	448	400
1852	2,416,367	1,159	480	418
1853	2,459,899	211	86	291
1854	2,503,662	694	277	301
1855	2,547,639	1,039	408	340
1856	2,591,815	531	205	291
1857	2,636,174	156	59	207
1858	2,680,700	242	90	208
1859	2,725,374	1,158	425	237
1860	2,770,181	898	324	221
1861	2,815,101	217	77	195
1862	2,860,117	366	128	209
1863	2,905,210	1,996	687	328
1864	2,950,361	547	185	280
1865	2,995,551	640	214	258
1866	3,040,761	1,391	457	334
1867	3,085,971	1,345	436	396
1868	3,131,160	597	191	297
1869	3,176,308	275	87	277
1870	3,221,394	973	302	295
1871	3,267,251	7,912	2,421	688
1872	3,319,736	1,786	537	708
1873	3,373,065	113	33	676
1874	3,427,250	57	16	661
1875	3,482,306	46	12	602
1876	3,538,246	736	207	161
1877	3,595,085	2,551	709	194
1878	3,652,837	1,417	387	266
1879	3,711,517	450	120	287
1880	3,771,139	471	124	309
1881	3,824,964	2,367	617	391
1882	3,862,876	430	110	271
1883	3,901,164	136	34	201
1884	3,939,832	1,236	307	238
1885	3,978,883	1,419	347	283
1886	4,018,321	24	5	160
1887	4,058,150	9	2	139
1888	4,098,374	9	2	132
1889	4,138,996	—	—	71
1890	4,180,021	4	1	2
1891	4,221,452	8	2	1.4
1892	4,263,294	41	10	3
1893	4,306,411	206	48	12
1894	4,349,166	89	22	16
1895	4,392,346	55	13	19
1896	4,421,955	9	2	19
1897	4,463,169	16	4	18

**Staff Illness
in the Fever
and
Smallpox
Hospitals.**

(7.) On pp. 37-40 is a summary of the returns submitted by the medical superintendents of the several hospitals, showing the total number of members of the staff who were off duty during the year on account of illness.

There were 4,064 (3,542)* persons employed at the fever hospitals during the course of the year (including those employed at the Gore Farm Hospital), of whom 201 (176), or 4·8 (5·0) per cent., fell ill with fever or diphtheria, and one died; while 989 (697), or 24·1 (19·7) per cent., suffered from other forms of illness.

The table also shows that 154 (220) persons were employed on the hospital ships during the year, none of whom contracted smallpox, but 23 (50), or 14·9 (22·7) per cent., suffered from other diseases.

In our report for the year 1892 we pointed out that nurses and other members of a hospital staff could be brought with almost absolute impunity into contact with smallpox, provided they were properly protected by vaccination; and the evidence of each succeeding year has confirmed us in that opinion.

**Proportion
of Staff to
Patients.**

(8.) We submit a table showing the average daily number of patients under treatment at the several hospitals and the average daily number of staff employed during 1897, and the respective proportions of nursing staff and total staff to patients.

At the hospitals for acute cases the proportion varied from one nurse to 3·0 (3·1) patients at the Western Hospital to one nurse to 4·0 (4·6) patients at the North-Western Hospital, and the total staff at the former hospital was as one to 1·4 (1·6) patients and at the latter hospital as one to 1·9 (1·9).

At the Northern Convalescent Hospital one nurse sufficed for 7·6 (9·9) patients—the total staff being as one to 2·8 (3·7); whereas, at the Gore Farm Hospital the proportion was one nurse to 5·4 (6·0) patients, and the total staff as one to 1·7 (2·3) patients.

* Italic figures in brackets throughout are the corresponding figures for 1896.

Table showing the Average Daily Number of Patients under treatment and Average Daily Number of Staff employed at each of the Board's Fever Hospitals during the year 1897, and the respective proportions of Nursing Staff and total Staff to Patients.

HOSPITAL.	Average daily number of Patients.	Average daily number of Staff employed.				Proportion of Nursing Staff to Patients.		Proportion of Total Staff to Patients.	
		Medical.	Nursing.	Other Staff.	Total Staff.	Staff.	Patients.	Staff.	Patients.
Eastern Hospital	340	5	105	110	220	1	3·2	1	1·6
North-Eastern Hospital ...	354	5	106	125	236	1	3·3	1	1·5
North-Western „ ...	428	4	106	117	227	1	4·0	1	1·9
Western „ ...	325	4	108	107	219	1	3·0	1	1·4
South-Western „ ...	287	4	83	115	202	1	3·4	1	1·4
Fountain „ ...	359	4	96	97	197	1	3·9	1	1·8
South-Eastern „ ...	374	6	113	116	235	...	...	...	...
Park „ ...	Not opened until the 8th September, 1897.					...	...	...	...
Brook „ ...	480	6	156	161	323	1	3·1	1	1·5
Convalescent Hospitals:—									
Northern Hospital ...	690	3	90	153	246	1	7·6	1	2·8
Gore Farm „ ...	528	4	98	200	302	1	5·4	1	1·7

iii. IMBECILITY.

Accommodation for Imbeciles. (1.) At the present time the Managers possess the following accommodation for imbecile patients:—

				Males.	Females.	Total.
ADULTS—						
Leavesden Asylum				900	1,100	2,000
Caterham „				945	1,100	2,045
Darenth „				450	602	1,052
				2,295	2,802	5,097
CHILDREN—						
Darenth Schools and } Pavilions* ... .. }				...	...	1,000
						6,097

* The pavilions accommodate a number of patients over 16 years of age who have been transferred thereto from the schools.

This accommodation is no longer sufficient for the requirements of the Metropolis, and arrangements are now in progress for the erection on a site at Tooting Bec of an asylum infirmary, with 750 beds, for helpless, feeble, and very aged patients.

Asylum Statistics. (2.) The reports of the medical superintendents of the asylums for adult imbeciles and of the schools for imbecile children will be found on pp. 111-140.

ANNUAL REPORT, STATISTICAL COMMITTEE, 1897.
TABLE H.—*Staff Illness in Infectious Hospitals during the year 1897.*

NATURE OF DISEASE.		OFFICERS.	Eastern Hospital.		North-Eastern Hospital.		North-Western Hospital.		Western Hospital.		South-Western Hospital.		Fountain Hospital.		South-Eastern Hospital.		Park Hospital.		Brook Hospital.		Northern Hospital.		Gore Farm Hospital.		SUMMARY (Fever Hospitals).		Hospital Ships (Smallpox).		RESULTS.	
			Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.	Number of Officers.	Number of days ward.		
Scarlet Fever	...	Assist. Medical Officers	2	93	...	...	...	...	...	...	1	46	...	...	...	...	...	...	...	...	...	...	...	...	3	139	...	...	Recovered.
	...	Night Supt. Nurse	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	73	...	...	Recovered.	
	...	Charge Nurses	...	112	...	...	2	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	52	9	421	...	...	P.H., two remaining warded at end of year; others recovered.
	...	Assistant Nurses	3	135	2	102	4	189	3	170	3	230	7	342	1	6	2	30	2	107	...	...	1	52	9	421	...	...	P.H., B.H., five, G.F.H., three remaining warded at end of year; others recovered.
	...	Wardmaids	...	...	3	94	2	80	1	54	1	55	4	248	1	25	1	40	4	234	1	40	9	545	27	1,415	...	...	F.H., S.E.H., and P.H., one each, and G.F.H. two remaining warded at end of year; others recovered.
	...	Laundrymaids	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	143	1	53	...	...	4	196	...	...	B.H., one remaining warded at end of year; others recovered.	
	...	Housemaid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	16	...	...	Recovered.		
	...	Needlewomen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	36	3	134	...	...	Recovered.
	...	Porters	1	26	1	57	3	139	Recovered.
	...	Polisher	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	26	...	...	...	...	...	1	26	...	...	Recovered.
Diphtheria	...	Assist. Medical Officers	...	...	...	...	...	...	1	32	2	37	...	...	...	...	...	...	...	...	...	...	...	...	3	69	...	...	Recovered.
	...	Superintendent Nurse	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	48	...	...	Recovered.
	...	Charge Nurses	2	59	1	20	2	51	1	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	284	...	...	Recovered.
	...	Assistant Nurses	4	113	1	11	3	97	3	111	1	15	10	279	6	220	...	...	2	63	5	289	10	500	45	1,698	...	...	F.H., three, S.E.H., one, B.H., one, and G.F.H., one remaining warded at end of year; others recovered.
	...	Wardmaids	1	29	1	50	...	...	...	...	2	53	3	123	2	91	...	...	1	88	4	209	5	183	19	826	...	...	F.H., one from last year; G.F.H., one remaining warded at end of year; others recovered.
	...	Needlewoman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	82	1	82	...	...	Recovered.
	...	Porter	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	42	...	...	Recovered.	
	...	Ambulance Driver	...	...	...	...	...	...	1	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	30	...	...	Recovered.
	...	Stoker	...	...	...	...	...	...	...	...	...	...	1	29	...	...	...	...	...	...	...	...	...	...	1	29	...	...	Recovered.
	...	Charge Nurse	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	95	...	...	Recovered.
Scarlet Fever and Diphtheria	...	Wardmaid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	51	...	...	Recovered.	
	...	Charge Nurse	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	95	...	...	Recovered.	
Enteric Fever	...	Charge Nurse	...	...	...	...	...	...	...	...	1	102	...	...	...	...	...	...	...	...	...	...	...	...	1	102	...	...	Recovered.
	...	Assistant Nurses	2	61	...	...	1	84	...	...	1	21	...	...	...	...	...	...	...	...	...	...	...	5	213	...	...	E.H., one died; others recovered.	
...	...	Wardmaid	...	...	...	...	...	...	...	...	...	...	...	...	1	26	...	...	...	...	...	...	...	1	26	...	...	S.E.H., one remaining warded at end of year.	
Other Diseases	...	Assist. Medical Officers	16	602	8	277	14	621	10	429	12	559	25	1,021	15	561	5	117	37	1,811	19	1,038	40	2,092	201	9,128	...	...	Recovered.
	...	Steward's Clerks	...	...	1	24	...	...	...	...	1	14	...	...	1	9	...	...	...	...	...	...	...	...	3	47	...	...	B.H., remaining warded at end of year; other recovered.
	...	Matron	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	2	...	...	...	2	5	...	...	Recovered.
	...	Assistant Matron	...	...	1	55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	...	...	Recovered.
	...	Housekeeper	1	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	55	...	...	Recovered.
	...	Night Superintendents	...	...	1	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	23	...	...	Recovered.
	...	Charge Nurses	15	225	12	156	7	91	17	301	26	213	6	41	5	43	4	31	11	169	1	10	14	193	118	1,473	...	...	G.F.H., one remaining warded at end of year; others recovered.
	...	Assistant Nurses	36	276	44	437	15	138	41	521	59	575	48	284	20	273	9	92	40	481	18	239	82	1,298	412	4,614	7	166	E.H., two died; N.H., one, and G.F.H., one died; B.H., two, G.F.H., two remaining warded at end of year; others recovered.	
	...	Cook	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	11	...	...	...	...	1	11	...	...	Recovered.
	...	Wardmaids	20	166	33	349	8	65	18	243	46	357	19	171	9	107	11	66	25	312	32	316	70	1,028	291	3,180	7	136	B.H., two, and G.F.H., four remaining warded at end of year; others recovered.	
	...	Housemaids	1	8	3	28	...	...	1	8	16	118	...	...	...	...	...	...	3	22	2	86	...	...	26	270	1	5	Recovered.
	...	Genl. Servants (Am. Stn.)	1	10	...	...	...	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	14	...	...	Recovered.
	...	Laundrymaids	4	174	7	66	2	9	3	40	...	...	...	...	3	33	...	...	15	168	3	11	3	79	40	580	1	9	B.H., three remaining warded at end of year; others recovered.
	...	Kitchenmaids	1	8	3	58	...	...	2	32	...	...	...	...	3	48	1	4	2	11	3	17	1	6	16	184	2	52	Recovered.
	...	Needlewomen	...	...	...	...	...	...	1	3	1	8	...	...	...	...	...	...	1	21	...	...	6	87	9	119	1	10	Recovered.
	...	Gate Porters	Recovered.
	...	Engineer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	28	1	10	...	...	2	38	...	...	Recovered.
	...	Mess-room Maids	1	14	1	5	...	...	...	...	...	...	...	...	...	...	...	...	1	18	...	...	...	...	1	18	...	...	Recovered.
	...	Porters	4	31	...	...	1	28	2	16	8	63	2	21	3	32	2	36	4	58	1	3	10	160	37	448	1	12	P.H., one died.
	...	Stokers	...	...	...	...	...	...	1	4	...	...	...	...	1	5	...	...	2	21	...	...	...	...	4	30	1	15	Recovered.
	...	Carpenters	1	5	1	13	2	18	Recovered.
	...	Painter	...	...	...																						

The annual figures for the combined imbecile establishments are as under:—

	Asylums.			Schools.			Grand Totals.		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
On January 1st, 1897, the several Asylums and Schools contained	2,266	2,752	5,018	634	354	988	2,900	3,106	6,006
There were admitted during the year from the several Parishes and Unions (including re-admissions)	229	161	390	76	56	132	305	217	522
Transferred	24	33	57	...	...	...	24	33	57
The total number under treatment being	2,519	2,946	5,465	710	410	1,120	3,229	3,356	6,585
Of that number there were Discharged... ..	57	28	85	25	20	45	82	48	130
Transferred ... ..	...	...	...	24	33	57	24	33	57
And there died	184	174	358	25	16	41	209	190	399
	241	202	443	74	69	143	315	271	586
Leaving under treatment on December 31st, 1897 ...	2,278	2,744	5,022	636	341	977	2,914	3,085	5,999

The total number remaining under treatment in the asylums and schools at the end of 1897 showed a decrease of seven as compared with the number at the end of 1896.

Tables I. to XIII., are summaries of the separate Tables for the three adult asylums given on pp. 117 to 139.

ADULT IMBECILES.—*Table I.* (p. 117) show admissions, re-admissions, discharges, and deaths for the year 1897.

Of the admissions, 387 (378)* were admitted for the first time, 3 (6), were re-admissions, and 57 (57) were patients transferred from the imbecile schools.

Of the patients discharged, 18 (17) had recovered, 20 (27) had improved, and 45 (54) had not improved.

The number of patients who died was 358 (362).

The average number resident was 5,025 (5,033); the highest number resident on any one day was 5,059 (5,055); and the lowest number was 4,977 (4,999).

Table II. (p. 117) shows admissions, re-admissions, discharges, transfers, and deaths since the opening of the first asylum in September, 1870, up to the end of 1897. The total admissions during this period of over 27 years were 19,313, of whom 17,489 were admitted for the first time, 145 were readmissions, and 1,679 were transfers from one asylum to another. This latter number does not balance with the transfers shown

* Italic figures in brackets throughout are the corresponding figures for 1896;

amongst the discharges, as it includes a number of patients received from Hampstead Asylum when it was closed in 1876, as well as a number of children over 16 years of age received from the imbecile schools. Of the discharges, 42 were not insane, 818 had recovered, 1,050 had improved, 1,145 had not improved, and 370 were transfers from one asylum to another. The deaths numbered 10,866.

Table III. (p. 118) shows the admissions, discharges, transfers, and deaths, with the mean annual mortality and proportion of recoveries per cent. of the admissions, for the year 1888, and for each subsequent year.

The total percentage of recoveries during the past year was 4·0 (3·8),* and the percentage of deaths on the average number daily resident was 7·1 (7·1).

Table IV. (p. 120) gives the classification, under the usual denominations of mental disease, of the mental condition of the patients admitted during the year 1897, and *Table V.* that of the patients resident on the last day of that year. Of the total number of 5,022 (5,018), 1,389 (1,363) are classified as suffering from imbecility, 1,232 (1,231) from dementia, 638 (630) from dementia and epilepsy, 458 (443) from imbecility and epilepsy, 275 (282) from chronic mania, 266 (263) from idiocy, 198 (227) from senile dementia, and 160 (164) from melancholia.

Table VI. (p. 123) is intended to show the causation of the insanity of the patients admitted during the year. The information it affords has not been obtained entirely from the formal certificates of admission, but has been supplemented and corrected by information elicited from the relatives or friends when visiting the patients.

Table VII. (pp. 126-7) shows the causes of death during the year 1897, together with the ages of the decedents, calculated from the ages stated in the orders of admission.

There were 358 (362) deaths during the year, 46 (40) having been caused by dementia and exhaustion, 50 (47) by heart disease, 42 (34) by pulmonary tuberculosis, 10 (23) by general tuberculosis, and 53 (32) by senile decay.

Table VIII. (pp. 130-1) shows the history of the annual admissions since the opening of the asylums, with the discharges and deaths, and the numbers of each year's admissions remaining on December 31st, 1897.

Of the 447 (441) patients admitted during the year 1897, 6 (5) had at the close of the year been discharged as recovered, 6 (7) as improved, and 9 (10) as not improved, and 36 (35) had died.

* Italic figures in brackets throughout are the corresponding figures for 1896.

Of the 5,022 patients remaining under treatment, 2,218 had been resident over ten years.

Table IX. (p. 133) shows the length of residence of those discharged as recovered and of those who have died during the year 1897.

Of the 358 (362)* deaths, 71 (63) were of patients who had been resident upwards of 18 years.

Table X. (pp. 132-3) shows the age of patients resident on December 31st, 1888, and on the same day in each subsequent year, calculated from the ages stated on the orders of admission.

Of the 5,022 (5,018) patients remaining on December 31st, 1897, 1,838 (1,756) were over 50 years of age, 4 (2) being over 90 years and two over 100.

Table XI. (p. 135) shows the ages of the patients admitted, discharged, and dying during the year 1897, calculated from the ages stated on the orders of admission.

Of the 390 (384) patients admitted direct from the parishes and unions, 112 (142) were between 15 and 30 years of age.

The total discharges numbered 85 (102).

The total deaths numbered 358 (362), of whom 266 (257) were upwards of 40 years of age, and 91 (71) upwards of 70 years.

Table XII. (pp. 136-7) shows the departments where patients were employed on December 31st, 1897. Out of a total of 2,278 (2,266) males, 857 (871), and out of 2,744 (2,752) females, 856 (877) were usefully employed in and about the asylums.

Table XIII. (pp. 138-9) shows the occupations previous to admission, and condition as to marriage, of the patients admitted during the year 1897.

Of the 253 (251) males admitted, 48 (61) were described as labourers, 57 (75) had no settled occupation, and of 41 (33) the occupation was unknown; 146 (152) were stated to be single, 42 (48) married, 34 (28) widowers, and as regards 31 (23) the condition as to marriage was unknown.

Of the 194 (190) females, 23 (31) were servants, 11 (13) charwomen, 80 (87) were without settled occupations, and of 41 (25) the occupation was unknown; 95 (121) were stated to be single, 36 (15) to be married, 39 (39) widows, and in 24 (15) cases the condition as to marriage was unknown.

IMBECILE CHILDREN.—The whole of the patients under treatment at the Darenth Schools and Pavilions being under one administration, there is no occasion for us to summarise the statistics, which will be found attached to the report of the Medical Superintendent, Dr. Walmesley, pp. 143 to 153.

* Italic figures in brackets throughout are the corresponding figures for 1896.

iv. TRAINING SHIP “EXMOUTH.”

Statistics. The number of boys admitted during the year was 325 (346)* (including 34 (20) who were admitted from extra metropolitan parishes and unions), while the number discharged was 298 (347).

Of the latter number, 129 (137) entered the Royal Navy, 112 (109) the mercantile marine, 28 (49) the Army as musicians, and 29 (52) were returned to their respective parishes and unions. There were 2 (3) deaths.

At the end of the year there remained 547 (522) boys under training, of whom 39 were chargeable to extra metropolitan districts.

The Training Ship Committee call attention to the fact that the number of boys entered into the Royal Navy from the “Exmouth” during the year was 129 (137), whilst the aggregate number of similar entries from all the other training ships in the United Kingdom was 196 (135).

v. GENERAL SUMMARY.

In conclusion, the Committee submit the following brief summary of the number of persons who have been under the care of the Managers in their several institutions since the opening of the first hospital in 1870 :—

NUMBER OF PERSONS. (Re-admissions are not included.)	Admitted direct from Homes or Parishes and Unions.	Remaining in the various Institutions, Dec. 31st, 1897.
Fever Patients (including 218 cases of } relapsing fever treated in 1870) ... }	176,619	4,668
Smallpox Patients	63,500	Nil.
Imbeciles	17,489	5,999
Boys on Training Ship “Exmouth”	6,528	547
Children at S. Anne’s Home	68	68
Totals	264,204	11,282

vi. MEDICAL SUPPLEMENT.

In continuance of the arrangement begun last year, there will be found at the end of this volume a Medical Supplement, edited by two of the Board’s medical superintendents (Dr. F. Foord Caiger and Dr. E. W. Goodall), who have been appointed for that purpose by their colleagues. In this supplement there are included, in the first place, reports based on the records of the fever hospitals for 1897, dealing with the following subjects of a medical rather than of a general statistical nature :—

- 1. Complications and co-existent infectious diseases.
- 2. Post-scarlatinal diphtheria.
- 3. Antitoxin treatment of diphtheria.

There are also included papers by members of the Managers’ medical staff on various subjects of interest in connection with the treatment of infectious disease. We think that the publication of these papers will not be without value in making generally available to the medical profession the vast stores of experience accumulated in our hospitals, and will, at the same time, tend to keep the hospitals themselves constantly on the watch for further possibilities of improvement. (Signed) W. M. ACWORTH.

* Italic figures in brackets throughout are the corresponding figures for 1896.

APPENDIX I.—INFECTIOUS DISEASES.

i. REPORT OF THE AMBULANCE COMMITTEE FOR
THE YEAR 1897.*January 31st, 1898.**To the Managers of the
Metropolitan Asylum District.***Prevalence
of Infectious
Diseases
and limita-
tion of ad-
mission to
Hospital.**

In submitting our annual report we desire to point out that both scarlet fever and diphtheria were less prevalent during the year 1897 than in 1896. Of scarlet fever 22,848 cases were notified, as compared with 25,647 in 1896; and of diphtheria 12,803 cases, as against 13,362 in the previous year; but the proportion of cases admitted to the Managers' hospitals is still increasing. During the month of August as many as 76·77 per cent. of the scarlet fever cases and 57·77 per cent. of the diphtheria cases were received; and, unfortunately, it again became necessary to limit admission to cases in which, as a consequence of their surroundings and conditions of life, the need of isolation was most urgent. Actuated by a desire to utilise fully their resources for the benefit of the sufferers from diphtheria, which is the more dangerous of the two diseases, the Managers took special steps to increase the number of beds set apart for diphtheria cases by diverting some of the accommodation provided for scarlet fever. It is, therefore, gratifying for the Managers to know that the cases of diphtheria which failed to obtain admission to their hospitals during the past year were comparatively few in number.

**Smallpox
outbreak.**

Owing to an outbreak of smallpox in February, in view of the possibility that the Gore Farm Hospital might be required for the reception of smallpox cases, we stopped the transfer thereto of scarlet fever patients. In a few weeks, however, the outbreak having been effectually checked, the transfer of scarlet fever convalescents was resumed.

**Hospital
accommo-
dation.**

The newly erected Park Hospital at Hither Green was not brought into use until the 8th November. This was too late in the season to be of much service; the prevalence of both scarlet fever and diphtheria being then on the decline. We anticipate that the Grove Hospital at Tooting, and the additional wards for diphtheria cases at the Western Hospital, will be completed and brought into use in 1898. In view of this increase of accommodation, we propose to submit suggestions to the General Purposes Committee for a rearrangement of the appropriation of beds to the several diseases admissible to the Managers' hospitals.

Ambulance Stations. The second of the new ambulance stations—namely, the North-Western—commenced operations on the 1st September last. The third—the South-Western Ambulance Station—is nearing completion, and will, we believe, be opened at an early date.

LAND SERVICE.

Removals to the Managers' Hospitals. On reference to Appendix A it will be seen that the total number of fever patients removed to the Managers' hospitals during the year was 22,795, as compared with 22,152 in 1896. The removals of smallpox patients numbered 121, as compared with 265 in 1896.

The average daily removals of fever patients in the first six months of the year was 51, and during the last six months 74, as compared with 53 and 68 respectively in 1896.

The aggregate removals during the year, including the transfer of patients from one hospital to another, numbered 42,758. Of this number, 12,216 were effected by the Eastern Station, 2,149 by the North-Western Station (opened on September 1st), 11,490 by the Western Station, 11,739 by the South-Eastern Station (including the removals effected by the Fountain Ambulance Shelter), and 5,164 by the Brook Station.

Appendix B exhibits the number of journeys made and miles run by the horses and vehicles during the year.

The following were the greatest numbers of patients removed to hospital in a day by the several stations:—Eastern Station, on July 15th, 32 patients; North-Western Station, on October 6th, 24 patients; Western Station, on November 17th, 40 patients; South-Eastern Station, on November 11th, 39 patients; Fountain Shelter, on September 9th, 12 patients; and Brook Station, on November 11th, 23 patients.

The heaviest week's work was, for the Eastern Station, that ended on July 17th, when 381 removals (including transfers, &c.) were effected, and 2,175 miles were travelled; for the North-Western Station, that ended on October 9th, when 101 removals were effected, and 1,002 miles were travelled; for the Western Station, that ended on July 24th, when 322 removals were effected, and 2,033 miles were travelled; for the South-Eastern Station, that ended on October 30th, when 363 removals were effected, and 2,279 miles were travelled; for the Fountain Shelter, that ended on July 10th, when 48 removals were effected, and 331 miles were travelled; and for the Brook Station, that ended on November 2nd, when 164 removals were effected, and 1,323 miles were travelled.

Smallpox Patients admitted. Smallpox patients were admitted to the Managers' hospitals from 18 out of the 30 poor law districts in the Metropolis, the total number, including cases which after observation proved not to be smallpox, being 95. The monthly admissions were as follow:—

January	...	...	8	July	...	...	4
February	...	...	52	August	...	...	1
March	...	...	7	September	...	...	1
April...	...	...	7	October	...	...	—
May ...	...	...	10	November	...	...	1
June ...	...	...	3	December	...	...	1

**Total
removals
(Smallpox).**

The total number of patients certified to be suffering from smallpox removed in the Board's ambulances from their homes to the wharves during the year was 121. In 71* cases the diagnosis was confirmed by the medical officers who inspected the patients at the wharves.

**Non-
Smallpox
Cases.**

All of the 50 patients who were, in the opinion of those officers, not suffering from smallpox were returned to their homes, with the exception of one male, who died, and one female, who remained under treatment in the shelter at South Wharf at the end of the year.

**Fever
Patients.**

At the commencement of the year there were 4,540 patients in the Managers' fever hospitals, distributed as follows:—

Hospital.	Scarlet.	Diphtheria.	Typhus.	Enteric.	Other Diseases.	Total.
Eastern Hospital ...	281	72	—	17	—	370
North-Eastern Hospital	395	—	—	—	—	395
North-Western Hospital	329	88	—	14	—	431
Western Hospital ...	225	84	—	14	—	323
South-Western Hospital	220	52	—	16	—	288
Fountain Hospital ...	280	96	—	—	—	376
South-Eastern Hospital	202	120	—	36	—	358
Brook Hospital ...	376	102	—	19	—	497
Northern Hospital ...	772	76	—	—	—	848
Gore Farm Hospital ...	654	—	—	—	—	654
Totals ...	3,734	690	—	116	—	4,540

This was a greater number by 1,011 than at the beginning of the preceding year. The number under treatment fell to the minimum (3,136) for the year by May 7th; after this date the number rose until it attained the maximum (5,023) for the year on December 9th. This figure would undoubtedly have been exceeded if the accommodation at the Park Hospital had been brought into use in the early part of the year.

**Enteric
Fever
Patients.**

One hundred and eighty-six enteric fever patients were during the year removed to general hospitals under the arrangements made with the authorities of those hospitals in 1892.

**Diphtheria
Patients.**

The total number of patients removed to the Managers' hospitals certified at the time of removal to be suffering from diphtheria or from "diphtheritic membranous croup" was 6,561, as against 5,334 in 1896.

The average daily number removed was 15 in the first half of the year and 21 in the latter half.

* Including two cases found on further examination after admission to the Hospital Ships not to be smallpox.

Patients conveyed to other places than the Managers' Hospitals. Under the powers conferred by section 79 (3) of the "Public Health (London) Act, 1891," 361 persons suffering from dangerous infectious disorders were conveyed in the Managers' ambulances during the year 1897. Of these 16 were stated to have measles, 69 scarlet fever, 134 enteric fever, 72 diphtheria, 61 erysipelas, five puerperal fever, two cholera, one relapsing fever, and one smallpox.

The total sum received by the Managers under this section of the Act during 1897 was £108 7s. 6d., of which £24 12s. 6d. was in respect of the services of nurses. In a considerable number of cases payment was remitted on account of the want of means of the patients.

Ambulance Stations. The several ambulance stations have been maintained in thorough repair. The temporary ambulance shelter at Tooting was vacated on October 19th last, and has since been demolished to make room for part of the Grove Hospital, now in course of erection.

The urgent pressure for accommodation, and the short supply of beds, again occasioned special anxiety to those engaged in directing the operations of the ambulance service, both at the chief offices and at the several stations. We have the satisfaction of reporting that no hitch of any kind has been experienced, and that no patient or nurse has had cause to complain of injury sustained while under charge of the service.

Staff. The health of the staff, both male and female, has on the whole been well maintained. At the Eastern Station 19 members have been off duty, five of whom suffered from influenza, and others with minor disorders, involving in the aggregate a loss of service of 118 days. At the North-Western Station only one man was off duty for six days. At the Western Station nine persons were off duty for an aggregate of 94 days, one of whom suffered from diphtheritic sore throat. At the South-Eastern Station four persons were off duty for a total of 13 days. At the Brook Station 11 persons were off duty for an aggregate of 89 days.

There were 39 resignations, seven discharges, and 55 appointments of the staff during the year.

RIVER SERVICE.

Steamers. The four ambulance steamboats—"Red Cross," "Maltese Cross," "Albert Victor," and "Geneva Cross"—and the ambulance steam launch "White Cross" have been maintained in working order.

The distance run collectively by the steamers was 6,221 miles, and they conveyed 1,233 patients and other passengers, and 69 tons 5 cwt. of stores, &c., to and from the hospital ships at Long Reach (see Appendix C, p. 52).

As in former years, several barges and other craft have come into collision with the Managers' steamers while lying at their moorings. The damage sustained has been in every instance made thoroughly good, and the total amount recovered in respect thereof during the year was £1,366 10s. 11d., making a total of £3,977 17s. recovered since 1885, in which year the present system of insurance against damage of all kinds, without the usual restrictive clauses, was first adopted.

Wharves. The wharves and piers, and the houses and other buildings in connection therewith, at Fulham, Rotherhithe, and Blackwall continue to be maintained in a satisfactory state of repair.

Staff. There have been eight discharges, on reduction of the staff, during the year.

COST OF AMBULANCE SERVICES.

The total expenditure during the year ended at Michaelmas last is as under:—

	Ordinary.			Special.			Total.		
	£.	s.	d.	£	s.	d.	£	s.	d.
For the Eastern Station	4,931	1	2	30	19	11	4,962	1	1
„ North - Western Station } (opened Sept. 1st, 1897)}	591	2	5	1,500	0	0	2,091	2	5
„ Western Station	4,600	8	6	Nil			4,600	8	6
„ South-Eastern Station	5,647	11	4	Nil			5,647	11	4
„ Brook Station	3,258	12	11	Nil			3,258	12	11
„ South-Western Station	Nil			102	1	8	102	1	8
	19,028	16	4	1,633	1	7	20,661	17	11
River Service	6,385	16	0	1,446	6	0	7,832	2	0
„ Medical Department	1,911	18	4	Nil			1,911	18	4
	£8,297	14	4	£1,446	6	0	£9,744	0	4

Expenditure out of “ Loan Account ”—	£	s.	d.
Brook Station—On account of erection of station ...	1,222	3	6
North-Western Station—On account of „ ...	7,884	16	0
River Service—On account of erection of staff quarters at South Wharf	892	1	6
Ditto On account of construction of new ambulance steam launch... ..	508	1	6
South-Western Station—On account of erection of station	8,541	15	4
	£19,048	17	10

With regard to the ambulance nurses, who have, as in previous years, been drawn from the hospitals in proximity to the ambulance stations, it may be mentioned that, for purposes of account and comparison as between the different institutions of the Board, the cost of their services has been assumed to be fairly represented by a fixed charge of 2s. 6d. per journey, and in the aggregate these charges amount to no less a sum than £3,029 12s. 6d. for the past year.

(Signed) JACKSON HUNT,
Chairman of the Committee.

APPENDIX A.—LAND AMBULANCE SERVICE.

Number of Patients removed by the Ambulances of the Board.

	From 1881 to 1891	1892	1893	1894	1895	1896	1897	TOTALS.
FEVER :—								
From homes to Hospitals ...	42,848	16,118	18,496	16,573	16,725	22,152	22,795	155,707
Convalescents to Northern and other Hospitals ... }	11,879	7,682	6,813	5,159	5,037	9,998	8,941	55,509
Recovered cases from Northern Hospital to Town Hospitals for discharge ... }	10,460	4,572	5,670	4,090	4,464	5,899	5,259	40,414
Recovered cases discharged from Northern Hospital conveyed from Eastern and Western Hospitals to South- Eastern Hospital ... }	...	100	60	221	82	154	111	728
Recovered cases from Gore Farm Hospital to Town Hospitals for discharge ... }	446	2,205	1,536	1,375	...	3,629	3,658	12,849
Recovered cases from Gore Farm Hospital conveyed from the South-Eastern Hospital to the Western, South-Western, and Eastern Hospitals ... }	...	183	126	112	...	31	13	465
Recovered cases from Gore Farm Hospital conveyed from the South-Western Hospital to the Western Hospital ... }	...	...	...	...	...	...	168	168
Other transfers between Hos- pitals ... }	...	...	...	7	61	1	10	79
From Hospitals to homes ...	*2,818	220	279	251	256	377	350	4,551
From General Hospitals to homes, owing to want of room in the Managers' Hospitals ... }	...	...	468	143	724	1,287	752	3,374
Enteric Fever cases from homes to General Hospitals ... }	...	...	170	216	241	109	186	922
Total Fever Patients ...	68,451	31,080	33,618	28,147	27,590	43,637	42,243	274,766
SMALLPOX :—								
From homes to Hospitals and Wharves ... }	14,070	306	2,389	1,186	1,045	265	121	19,382
From Hospitals to Wharves...	4,953	200	331	8	...	...	...	5,492
Other transfers between Hos- pitals ... }	...	5	1	1	3	...	...	10
From Hospitals and Wharves to homes ... }	10,358	10	44	77	77	39	33	10,638
Total Smallpox Patients ...	29,381	521	2,765	1,272	1,125	304	154	35,522
Conveyance of Patients to other places than the Mana- gers' Hospitals ... }	256	432	593	269	326	433	361	2,670
Grand Totals ...	98,088	32,033	36,976	29,688	29,041	44,374	42,758	312,958

* Includes some smallpox cases.

The use of the Managers' ambulances for the general conveyance of the infectious sick was not authorised until the 30th November, 1889.

APPENDIX B.—LAND AMBULANCE SERVICE—(continued).

Return of Work for the Twelve Months ended December 31st, 1897.

PARTICULARS OF WORK.	Number of Journeys.	MILES RUN.				
		By Horses.				By Vehicles.
		1	2	3	4	
REMOVALS FROM HOME—						
To the Board's Hospitals—						
Fever Patients	21,034	200,371	1,774	...	...	202,145
Smallpox Patients...	...	...	...	...	...	...
To the Board's Wharves—						
Smallpox Patients...	115	1,506	23	...	...	1,529
To General Hospitals—						
Enteric Patients	180	1,879	...	...	...	1,879
OTHER REMOVALS—						
From General Hospitals to homes owing to want of room in the Board's Hospitals	726	5,967	...	...	...	5,967
Non-Smallpox Patients returned home	25	289	23	...	...	312
Other Patients returned home...	34	273	...	...	...	273
Patients sent for, but for various causes not removed ...	1,029	7,770	15	...	...	7,785
Patients' friends taken from home to Hospital	5	42	...	...	...	42
Patients' friends taken from Hospital to home	1	10	...	...	...	10
TRANSFERS BETWEEN HOSPITALS—						
Fever Patients to and from Northern Hospital...	818	1,457	17,487	...	...	18,944
Fever Patients to and from Gore Farm Hospital ..	982	78	19,745	810	41	20,674
Other transfers between Hospi- tals	101	1,350	106	...	...	1,456
RECOVERED PATIENTS TAKEN HOME—						
From Fever Hospitals	333	3,162	...	...	...	3,162
From Wharves:—Smallpox ...	30	327	...	...	...	327
Service requirements	274	2,926	66	...	...	2,992
Conveyance of Ambulance Com- mittee	5	16	5	...	...	21
Conveyance of other Committee ..	2	...	19	...	...	19
	25,694	227,423	39,263	810	41	267,537
Conveyance of Patients to other places than Managers' Hospitals (private removals)	361	3,720	154	...	...	3,874
Totals for 1897	26,055	231,143	39,417	810	41	271,411
Totals for 1896	26,646	249,376	46,792	337	301	296,792
Totals for 1895	19,963	189,360	23,004	...	...	212,364
Totals for 1894	19,796	176,602	26,918	72	223	203,820
Totals for 1893	24,017	214,884	30,186	...	241	245,311
Totals for 1892	17,607	147,606	27,497	...	3,535	178,638
Totals for 1891	8,254	66,129	12,958	...	791	79,873
Totals for 1890	8,644	67,413	14,167	415	2,405	84,423
Totals for 1889	5,594	40,957	6,276	232	881	48,346
Totals for 1888	5,550	34,842	12,767	...	1,910	49,519
Totals for 1887	6,507	51,894	5,223	...	1,009	58,126
Totals for 1886	2,073	13,578	1,980	...	...	15,558
Grand Totals	170,706	1,483,814	247,185	1,866	11,342	1,744,181

APPENDIX I.—INFECTIOUS DISEASES.

APPENDIX C.—RIVER SERVICE.

Number of Patients, Visitors, Staff, &c., conveyed to and from the Hospital Ships during the year 1897.

MONTH.	Patients conveyed to Hospital Ships.	Recovered cases conveyed from Hospital Ships.	Visitors conveyed to and from Hospital Ships (including Managers).	Staff, &c., conveyed to and from Hospital Ships.	Totals.
January	7	...	...	74	81
February	44	3	53	99	199
March	4	27	20	124	175
April	4	9	13	98	124
May	9	5	16	133	163
June ... ..	...	10	22	117	149
July	1	...	4	81	86
August ... ..	...	1	...	59	60
September ... ..	...	...	1	69	70
October ... ..	...	...	3	91	94
November ... ..	...	...	...	57	57
December ... ..	...	...	...	25	25
Totals for 1897	69	55	132	1,027	1,283
Totals for 1896	188	243	153	1,815	2,399
Totals for 1895	925	792	862	2,372	4,951
Totals for 1894	1,101	1,009	1,762	3,742	7,614
Totals for 1893	2,364	2,053	2,195	4,040	10,652
Totals for 1892	298	235	121	735	1,389
Totals for 1891	63	53	155	503	774
Totals for 1890	26	25	38	339	428
Totals for 1889	5	4	51	445	505
Totals for 1888	62	63	246	476	847
Totals for 1887	54	45	395	478	972
Totals for 1886	130	145	458	*3,929	4,662
Totals for 1885	5,468	5,809	†	†	11,277
Totals for 1884	5,592	4,267	†	†	9,859
Grand Totals	16,345	14,798	6,568	19,901	57,612

STEAMERS.

STEAMER.	Fires alight.		Under Steam.		Under Way.		Coal consumed.		Number of days when under steam.	Distance run.
	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	Tons.	Cwt.		Miles.
“ Albert Victor ” ...	1,893	...	1,782	...	189	3	86	1¼	130	1,825
“ Geneva Cross ” ...	218	10	122	30	26	33	12	10	26	300
“ Maltese Cross ” ...	3,125	...	2,857	30	208	21	117	4¼	176	1,917
“ Red Cross ” ...	785	20	598	...	130	33	57	5¼	79	1,266
“ White Cross ” ...	426	20	242	15	84	34	16	4	55	913
Totals ...	6,447	50	5,602	15	639	9	289	4¾	466	6,221

Quantity of Stores, Parcels, &c., conveyed to and from the Hospital Ships.
Number, 1,628. Weight, 69 tons 5 cwt. 1 qr. 25 lbs.

* Included in this number is the number of contractors' workmen who were engaged on building and other work in connection with the hospital ships, and who were conveyed to and from Long Reach each week.
† No figures were given in the Committee's Report for 1884 and 1885

ii. REPORTS OF THE MEDICAL SUPERINTENDENTS OF THE SEVERAL FEVER HOSPITALS FOR THE YEAR 1897.

(For Statistics, see pp. 66 to 91.)

[N.B.—*Those portions of the reports relating to alterations to buildings and other matters of no general interest have been omitted.*]

No. 1.

EASTERN HOSPITAL.

HOMERTON, N.E.,

January 21st, 1898.

Statistics. During the year 3,445 patients have been under treatment. Of these 1,606 have been discharged recovered, 1,174 have been transferred to other hospitals of the Board, and 321 have died, leaving 344 under treatment. The percentage mortality is 10·39.

The number of scarlet fever cases under treatment has been 1,739. Of these, 629 were discharged, 910 were transferred, 76 died, and 124 remained at the end of the year. The percentage mortality is 4·93. In nine cases death was due to causes other than scarlet fever, viz., whooping cough, one; measles and diphtheria, one; measles, seven. If allowance is made for these cases, the scarlet fever mortality becomes 4·34.

There were 31 cases of secondary or post-scarlatinal diphtheria, with three deaths, a mortality of 9·6 per cent. In every one of these three cases, however, death was due to measles. M. D., a girl aged four years, admitted on December 17th, 1896, developed diphtheria on January 4th, 1897, and measles on March 10th; she died on March 26th. M. II., a girl aged four years, admitted on February 4th, developed diphtheria on February 18th and measles on March 20th, of which she died five days later. F. C., a girl aged two years, admitted on April 5th, developed measles on April 16th and diphtheria on April 20th; she died on April 27th of lung complications, due to measles. Twenty-five of the cases were treated with antitoxia. Cases occurred in all the wards except three (Temperance, Faith, and Charity). There were nine cases of other forms of secondary sore throat.

The number of cases of diphtheria under treatment was 1,244. Of these, 604 were discharged as recovered, 264 were transferred, 192 died, and 184 remained at the end of the year. The mortality per cent. is 17·18, the lowest hitherto recorded for this hospital. The rate is, however, only a trifle lower than last year. Included among the fatal cases are 17 in which death was due to causes other than the attack of diphtheria for which the patients were admitted, viz., measles, seven; scarlet fever, four; pneumonia, two; empyema, one; bronchitis, one; whooping cough, one; and heart disease, one. Making allowance for these, the mortality is 15·66 per cent. Last year the mortality thus corrected was 16·5 per cent. In the Medical Supplement, p. 178, will be found some observations on the results of the antitoxin treatment during the past year.

Of enteric fever 121 cases have been under treatment. Of these, 86 were discharged, 17 died, and 18 remained at the end of the year. The mortality per cent. is 16·34, the same as last year. In one case the cause of death was pyæmia, due to long-existing disease of the ear.

One case of typhus fever was admitted.

The combined mortality of the scarlet fever, diphtheria, enteric, and typhus fever cases is 10·31 per cent.

Of the 3,074 cases admitted, 329, or 10·5 per cent., were found to be suffering from diseases other than those which they were certified to have. The percentage of error was in the case of scarlet fever 4·2, of diphtheria 14·9, and of enteric fever 33·5. Last year the figures were 3·5, 15·5, and 27·0, the total percentage error being 7·9.

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(Signed) E. W. GOODALL,
Medical Superintendent.

No. 2.

NORTH-EASTERN HOSPITAL.

ST. ANN'S ROAD, SOUTH TOTTENHAM,
January, 1898.

Statistics.

During last year 2,524 patients were admitted, which, added to 394 left in from the previous year, made a grand total of 2,918 treated during 1897. Of these 81 died, giving a percentage mortality of 3·18; 1,461 were discharged, 1,018 transferred, and 358 left in at the end of the year.

The cases of scarlet fever treated numbered 2,833, with 73 deaths, the percentage mortality being therefore 2·96. This, though not quite so low as in the previous year, is very exceptional for the Board's hospitals.

There was a considerable reduction in the number of patients treated last year as compared with 1896. This was due to the two following causes:—

- (a) Firstly, in the early part of the summer No. 1 ward was required for the purpose of providing increased sitting-room accommodation for the nursing staff.
- (b) Secondly, owing to the serious character of the cases that were being admitted at that time (there were 26 deaths during July and August), I did not feel justified in advising the Committee to put extra beds into the acute wards when the usual rise in the notifications took place towards the end of the summer.

The 73 deaths from scarlet fever included two from tuberculosis and five from post-scarlatinal diphtheria.

Three cases of diphtheria and one of enteric fever were admitted. They recovered.

During the year 79 cases, or 3·1 per cent. of the total admissions, were found to be suffering from some disease other than scarlet fever, diphtheria, or enteric; of these eight died, the percentage mortality being 10·74. The cases of post-scarlatinal diphtheria numbered 29, with five deaths, giving a percentage mortality of 17·2.

**Return
Cases.**

During the last seven months of the year there have been seven cases which, on investigation, I felt were probably "return" cases in connection with this hospital, evidence of infection from another source not being obtainable. Three of the patients who gave rise to these cases had been detained for three months, and the average stay of the seven in hospital was ten weeks.

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(Signed) HERBERT CUFF,
Medical Superintendent,

No. 3.

NORTH-WESTERN HOSPITAL.

HAYERSTOCK HILL, N.W.,
February 4th, 1898.

Statistics.

The death-rate for the twelve months upon the gross number treated, viz., 3,826 is 8·58. Of the 3,400 admissions, all direct from their homes or public institutions, 2,150 were cases of scarlet fever, 894 cases of diphtheria, 149 cases of enteric fever, and 207 were found at the time of admission, or subsequently, to be suffering from disorders other than the infectious disease notified. Of the total admissions, 63·2 suffered from scarlet fever, and 82 deaths were referable to this disease or its complications, the percentage mortality calculated according to the Registrar-General's formula being 3·79—a lower death-rate than has ever been recorded in this hospital.

The type of this disease was much below the average severity as observed for many years past; serving to support the opinion that scarlet fever is a diminishing disorder, and that with its mitigation there is a proneness to localisation.

In reference to age, 33·9 were under five years, and 40·8 between five and ten years.

The number of diphtheria cases admitted approximated very closely to those of 1896, viz., 894. Of this number, 170 proved fatal, the mortality, calculated by the recognised formula, being 18·81, as against 29·77 of the preceding year.

This disease was unquestionably very much milder—at least, as seen here—and a large number have been included which in years past would not have been so classified—the bacteriological examination outweighing the clinical diagnosis. Of these cases, 45·9 per cent. were under five years of age, and 36·6 per cent. between the years of

five and ten, or a total of 82·6 per cent. under ten years of age. In the number of deaths are included 32 that succumbed within forty-eight hours after admission. The operation of tracheotomy was called for in 43 cases, with a successful result of 67·5 per cent. Suppression of urine, although not appearing among the list of complications, numbered 49, all cases of which necessarily proved fatal.

To students of the subject of diphtheria, it is, of course, well known that there are, broadly speaking, three ways of diagnosing the disease. Firstly, by clinical observation and experience only; secondly, by bacteriological examination of the membrane from the throat or elsewhere; and thirdly, by the combination of the two methods. Each of them, I take it, finds favour, but the clinician of experience is hardly prepared to surrender his practically certain knowledge on account of the absence of a now well-recognised bacillus; but, whereas in all ill-defined cases the bacteriological proof is, from the present standard of knowledge, deemed to be conclusive, such examinations have necessarily been very numerous in the past year, and I am indebted to my colleague, Dr. Starkey, who combines the post of bacteriologist with that of assistant medical officer in this institution, for the report on the subject in the appended medical supplement, p. .

Of the 149 enteric cases, 26 died, a percentage of 17·93, or a mortality of 10·9 in females and 23·6 in males.

Other diseases contributed 207, with a death-rate of 7·31.

Of the 34 cases of post-scarlatinal diphtheria, three died. Again, the presence of diphtheria bacilli in cultures made explains the increased number of this complication, as compared with former years; every case demonstrating such being placed in this table, many of which were, however, of the mildest character, and from the onset indicated an almost certain recovery.

Measles was very prevalent in the latter weeks of 1897, no fewer than 62 cases being in evidence. Of these, one only died, lending strength to the opinion that the great mortality (as shown by the Registrar-General's return) in the Metropolis would be greatly reduced by the treatment of such patients in hospitals, and the necessity for such a highly infectious fever being placed among the compulsorily notifiable diseases.

The percentage of errors in diagnosis was 2·6 in scarlet fever, 9·06 in diphtheria, and 45·6 in enteric cases.

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(Signed) WM. GAYTON,
Medical Superintendent.

No. 4.

WESTERN HOSPITAL.

FULHAM, S.W.,

February 3rd, 1898

Statistics. The total number of cases treated during the year was 3,199, made up of 2,868 admissions and 330 which remained in hospital at the end of 1896. The discharges numbered 2,632, and of these 1,687, or 63 per cent., were transferred to other hospitals of the Board, and 945 were sent home; 236 died; and 331 remained under treatment on December 31st.

The gross mortality was 8.22 per cent.

Of scarlet fever, 2,138 cases were treated, 1,468 transferred, 369 discharged recovered, and 82 died, leaving 219 in hospital at the end of the year.

The percentage mortality was 4.26, as against 4.37 in the previous year.

The 82 fatal cases include 12 in which death was due to intercurrent disorders, viz, diphtheria, nine; measles, one; whooping cough, one; tuberculosis, one.

Post-scarlatinal diphtheria was observed in 48 cases, of which four died, a mortality of 8.33 per cent.

The incidence of the disease was somewhat less than in the previous year, being 2.5 per cent. on the completed cases, as against 2.9.

The death rate attending this form of diphtheria, and especially the death rate in the laryngeal cases, of which there were 14 with two deaths, was again in striking contrast to that which attained at this hospital prior to the introduction of the antitoxin treatment.

The number of cases of diphtheria under treatment was 766, which includes 102 remaining in at the end of 1896; 422 were discharged, 219 were transferred, 135 died, and 92 remained at the end of the year.

The mortality was 17.50 per cent., which is 4.43 per cent. below that of last year.

The antitoxin treatment was employed in 65 per cent. of the cases admitted.

The operation of tracheotomy was necessitated in 34 cases, of which 11 died and 23, or 67.6 per cent., recovered. This recovery rate is 8 per cent. higher than has hitherto been recorded in this hospital.

Of enteric fever, 77 cases were under treatment; of these 60 were discharged and seven died, leaving ten in hospital.

The mortality was 10.68, as against 13.17 in the previous year.

Of the 2,868 admissions, 113, or 3.9 per cent., were found not to be suffering from the disease which they were certified to have. The percentage of error was 2.1 in cases certified scarlet fever, 6.7 in cases certified diphtheria, and 29.6 in cases certified enteric fever.

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(Signed)

R. M. BRUCE,

Medical Superintendent.

No. 5.

SOUTH-WESTERN HOSPITAL.

LANDOR ROAD, STOCKWELL, S.W.,

January 31st, 1898.

Statistics. During the year 2,134 patients have been admitted, which, with 286 remaining in hospital at the end of the previous year, brings the total number under treatment up to 2,420.

Of these, 1,212 were discharged, 724 were transferred, 182 died, and 302 remained on December 31st.

The general mortality for all classes of disease was therefore 8·56.

The scarlet fever admissions numbered 1,383, and 215 remained over from the previous year. The total number treated was consequently 1,598. Of these, 676 were discharged, 680 (or rather over 50 per cent.) were transferred, 55 died, and 187 remained at the close of the year. The scarlet fever mortality was therefore 3·93 per cent. This is the lowest which has so far been recorded in this hospital.

Sixty-nine patients developed another infectious disease in hospital. Of these 31 were cases of diphtheria, representing an incidence of 2·5 per cent. amongst the scarlet fever convalescents. Two of them only were fatal, yielding a post-scarlatinal mortality of 6·4 per cent. This also is the lowest figure we have so far reached.

The best results hitherto attained were in the two preceding years, when the post-scarlatinal mortality was 18 and 8·3 per cent. successively. These figures compare very favourably with those for the year 1894, which immediately preceded the employment of antitoxin. The death rate was in that year 53·3 per cent.

If further tribute be required as to the value of antitoxin in this class of case, it may be noted that in only one instance during the year did the necessity for tracheotomy arise; in all the rest the serum treatment alone sufficed.

Amongst the 38 other cases of scarlet fever in which some intercurrent infectious disease arose in hospital, only one died, and that from measles.

There were admitted 564 cases of diphtheria, and 45 remained over from the preceding year. Of the total number treated, viz., 609, 376 were discharged, 44 were transferred, 95 died, and 94 remained on December 31st. The diphtheria mortality was therefore 17·6 per cent. If five cases be excluded in which death resulted from an intercurrent attack of scarlet fever, the mortality would then be 14·9 per cent., which is even lower than that of last year, when it was 16·3 per cent.

The average type of the cases admitted during November and December was exceptionally severe.

Antitoxic serum was used consistently throughout the year, 63 per cent. of the cases being of sufficient gravity to call for its employment.

In only five of the fatal cases was the serum not given. Three of them were mild cases of diphtheria, and death resulted from some cause unconnected with the disease, and the other two were obviously past the reach of any treatment, and died within two hours after their arrival.

It is to be feared that unless a larger proportion of patients can be brought into hospital at an earlier stage of the disease, the mortality cannot be expected to fall much below 15 per cent., even with antitoxin. No less than one-third of the diphtheria patients were not received into hospital until the fifth day of the disease, or later.

The number of cases of enteric fever admitted during the year was 94, and 17 remained over from 1896. Of these 111 cases, 73 were discharged, 22 died, and 16 remained at the close of the year. The enteric fever mortality was therefore 23·28.

Of the total admissions, 93, or 4·3 per cent., were found to be suffering from some miscellaneous disease other than scarlet fever, diphtheria, or enteric fever, as certified, and nine remained over from the previous year. Of these, 87 were discharged, ten died, and five remained in hospital on December 31st. The mortality amongst these cases was therefore 10·52.

The largest proportionate number of mistakes occurred in respect to the diagnosis of enteric fever.

Of 117 cases so certified, in 24, or 20·5 per cent., the diagnosis was held to be erroneous.

Of 609 cases certified diphtheria, the diagnosis was incorrect in 45, or 7·4 per cent., as evidenced by a bacteriological examination.

Of 1,404 cases certified scarlet fever, in 24, or 1·7 per cent., the patients were found to be suffering from some other disease.

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(Signed) F. FOORD CAIGER,
Medical Superintendent.

No. 6.

FOUNTAIN HOSPITAL.

GROVE ROAD,

LOWER TOOTING, S.W.,

February 9th, 1898.

Statistics. The tables show that the total number of patients under treatment during the year 1897 was 3,167. Of these, 2,795 were direct admissions, and the rest (372 in number) were handed on from the previous year. There were 1,472 patients discharged recovered, 1,061 were transferred to the convalescent hospitals of the Board, 270 died, and 364 patients remained under treatment at the close of the year. The gross mortality was 9·6 per cent.

The scarlet fever admissions numbered 1,807, and those remaining from the previous year 267. Of these, 811 were discharged recovered, 914 transferred to the country, and 81 died. The scarlet fever mortality therefore was 4·4 per cent.

During the year 77 patients were admitted with coexistent scarlet fever and diphtheria. Nineteen of these died—a mortality of 24·6 per cent. Ninety-one scarlet fever patients developed diphtheria after admission, and of these two died—a mortality of 2·19 per cent.

All the serious cases were treated with antitoxic serum. The difference in the mortality emphasises more than anything else can the importance of early administration of antitoxin in these cases.

The diphtheria admissions numbered 875, and those remaining from the previous year 104. Of these, 556 were discharged recovered, 147 transferred to the country, 184 died, and 92 remained at the end of the year. The diphtheria mortality was 20·8 per cent. In 37 cases death took place within 48 hours of admission.

Tracheotomy was performed on 41 completed cases, with 14 deaths—a mortality of 34·1 per cent. The average diphtheria mortality since the regular administration of antitoxin was begun three years ago is 20·02 per cent., and, as compared with the average of 30·3 per cent. in the Board's hospitals before antitoxin was introduced, represents in round numbers a saving of 240 lives during that period in this hospital alone.

With regard to miscellaneous diseases, 113 patients were found not to be suffering from the disease for which they were certified; five died. The percentage of errors numbered 2·2 in the case of scarlet fever, 8·3 in the case of diphtheria, and 4·04 on the total admissions.

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(Signed) C. E. MATTHEWS,
Medical Superintendent.

No. 7.

SOUTH-EASTERN HOSPITAL.

HATFIELD STREET, S.E.,

January 13th, 1898

Statistics. During the past year the accommodation of the hospital has been increased by the opening of a second two-storey pavilion, and also by the temporary addition of beds to certain wards, bringing up the total beds to 481.

The largest number of patients in hospital on any one night was 464.

The total number of cases treated was, however, 35 less than in the preceding year, viz., 3,259, as against 3,294.

The usual statistical tables are appended, and on comparing these with those for 1896, the most noteworthy difference is a fall of 3 per cent. in the case mortality of diphtheria. On the other hand, the mortality of enteric fever has risen 1 per cent. The mortality among cases of diphtheria upon whom tracheotomy was performed, excluding those complicated by measles, &c., was 35·7 per cent., as against 32.

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(Signed) F. M. TURNER,
Medical Superintendent.

No. 8.

PARK HOSPITAL.

HITHER GREEN, S.E.,

January 10th, 1898.

Statistics. The hospital was opened for the reception of patients on November 8th, 1897.

There were admitted 281 patients from that date to the end of the year. Twenty-five recovered, and 18 died, leaving 238 in hospital on December 31st.

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(Signed) R. A. BIRDWOOD,
Medical Superintendent.

No. 9.

BROOK HOSPITAL.

SHOOTER'S HILL, KENT,

February 23rd, 1898.

Statistics. The total number of cases treated was 3,416. Of these, 1,765 recovered, 972 were transferred to Gore Farm Hospital, and 182 died. There remained under treatment on December 31st, 497 patients. The mortality of all cases combined was 6·24 per cent.

The cases of scarlet fever treated numbered 2,400. Of these, 1,021 were discharged recovered, 972 were transferred to Gore Farm Hospital, and 62 died. The mortality was therefore 3·04 per cent.

The complications incident to the scarlet fever patients (see Table I., p. 157) show that the disease was of average severity. Of the diseases co-existing with scarlet fever, the most important was diphtheria (see Table IV., p. 159, and Table VI., p. 164). Forty patients showed concurrent scarlet fever and diphtheria when admitted, while 56 developed diphtheria after admission.

The cases of concurrent scarlet fever and diphtheria on admission were distributed as follows during the months of the year:—There were five in January, six in February, three in March, four in April, two in May, four in June, three in July, none in August, one in September, four in October, two in November, and six in December.

Post-scarlatinal diphtheria cases occurred for the most part during the autumn and winter months. There were 13 in January, 11 in February, one in March, none in April, none in May, one in June, four in July, three in August, two in September, six in October, six in November, and nine in December.

The distribution of the cases in the several wards was erratic.

None in A 1.

1 each in A 2, B 2, G 1, G 2, H 2, R, and S.

2 each in C 1, E 2, P, and Q.

3 each in E 1, F 1, H 1.

5 in B 1, C 2, D 1.

8 in F 2.

9 in D 2.

A causal relation did not appear to exist between any two cases in a particular ward. All the patients recovered. The severe cases were treated systematically with antitoxin.

The cases of diphtheria treated numbered 752. Of these, 549 were discharged recovered and 84 died. The mortality was therefore 13·11 per cent. The disease was of very much the same severity as in the two preceding years. Twelve patients died within 24 hours of admission. The mortality of 13·11 per cent. was exceptionally low—the lowest annual mortality that has occurred in my hospital

experience. Tracheotomy was performed in 32 cases. Ten of these died. Therefore 69 per cent. of the tracheotomies recovered.

Eighty per cent. of the cases were treated with antitoxin.

The following table shows briefly the results of the antitoxin treatment, with especial reference to the day of disease in which the treatment was commenced :---

TABLE I.—Cases treated with Antitoxin, 1897.

DAY OF DISEASE.	1st.		2nd.		3rd.		4th.		5th & after.		TOTAL.		Mortality per cent.
AGES.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Under 1	1	0	8	1	0	0	1	0	7	2	17	3	17.6
1 to 2	1	0	2	1	6	2	2	1	17	4	28	8	28.5
2 to 3	0	0	13	0	11	1	8	2	13	1	45	4	8.8
3 to 4	1	0	15	1	16	1	13	5	22	4	67	11	16.1
4 to 5	2	0	9	0	12	3	19	2	19	5	61	10	16.4
5 to 10	4	0	39	2	35	4	41	7	69	20	188	33	17.5
10 to 15	2	0	17	1	14	0	13	2	20	1	66	4	6.06
15 to 20	0	0	3	0	4	0	1	0	6	1	14	1	7.14
20 and upwards	1	0	4	0	6	1	2	0	8	1	21	2	9.5
Total	12	0	110	6	104	12	100	19	181	39	507	76	14.9
Mortality per } cent ... }	...	...	...	5.42	...	11.5	...	19	...	21.5	...	14.9	...

It is to be noted that of the cases in which antitoxin treatment was commenced on the first day of the disease the mortality was *nil* ; on the second day it was 5.4 per cent. ; on the third day, 11.5 per cent. ; on the fourth day, 19 per cent. ; and on the fifth or later, 21 per cent.

This confirms the results of the antitoxin treatment obtained in 1895 and 1896, and shows the paramount importance of early diagnosis, followed by antitoxin treatment at the earliest possible moment.

The cases of enteric fever treated numbered only 92. Of these, 59 were discharged recovered and 18 died ; the mortality was therefore 23.38 per cent. The male cases were of a very severe nature.

The miscellaneous diseases treated numbered 172 ; of these, 136 were discharged recovered and 18 died ; the mortality was therefore 11.35 per cent.

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The hospital has been inspected by many persons interested in hospital work, by medical officers of health, by medical practitioners at home and abroad, by the Inspector-General of Hospitals and Fleets, and by deputations from Leeds and Glasgow. All have expressed themselves in terms of high praise of the plan and construction of the hospital, and many of them have remarked that the Brook need not fear comparison with any hospital at home or abroad.

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(Signed) JOHN MACCOMBIE,
Medical Superintendent.

No. 10.

NORTHERN HOSPITAL.

WINCHMORE HILL, LONDON, N.,

February, 1898.

Statistics. On December 31st, 1896, 852 cases were remaining in hospital, 5,285 were admitted during 1897, and the total number treated during the year was 6,137. 5,258 were discharged, three were transferred to other hospitals of the Board, and ten died.

Of the admissions, 4,533 were scarlet fever and 752 diphtheria cases. Of the former nine and of the latter one died. The gross mortality was 0·189, that of scarlet fever 0·198, and of diphtheria 0·134.

The complications were much of the usual character, but were generally less numerous than in the preceding year.

The hospital was free from measles up to December 12th ; from that date to the end of the year, seven cases occurred, arising from two separate centres of infection.

Two hundred and sixty-seven cases of post-scarlatinal diphtheria were completed during the year, with three deaths ; a mortality of 1·127. In one of the three fatal cases, death was not due to diphtheria, and in another was probably unconnected with the diphtheria attack ; the actual mortality was therefore less than 1 per cent.

Antitoxin was given in 232, or nearly 87 per cent. of the cases, and to this remedy the result attained is undoubtedly due.

By the application of the treatment, on the lines already initiated by the action of the Board, to primary diphtheria in its early stages, it appears reasonable to expect that the fatality of that form of the disease may be similarly reduced.

Fifty-four diphtheria convalescents contracted scarlet fever ; of these one died.

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(Signed)

F. N. HUME,

Medical Superintendent.

No. 11.

GORE FARM HOSPITAL.

DARENTH, NEAR DARTFORD, KENT,

February, 1898.

Statistics. There were 4,191 cases of scarlet fever under treatment. Of these, 3,605 were discharged recovered, five were transferred to other hospitals, 11 died, and there remained 570 under treatment at the end of the year. The death rate was $\cdot 307$.

Throughout the year 186 cases of post-scarlatinal diphtheria occurred, the incidence on all patients being not quite 4·5 per cent. The death rate on 175 completed cases was 2·3 per cent.

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(Signed)

FREDERIC THOMSON,

Medical Superintendent.

FEVER STATISTICS.—TABLE I.—*Showing the*

EASTERN HOSPITAL.										
DISEASES.	Remain- ing on Dec. 31st, 1896.	Admitted during 1897.		Total under treatment during 1897.	Discharged during 1897.		Died during 1897.	Mortality per cent.	Remain- ing on Dec. 31st 1897.	
		Direct from homes.	From other Hospitals of Board.		Re- covered.	To other Hospitals of Board.				
Scarlet	273	1,465	1	1,739	629	910	76	4.93	124	
Diphtheria	70	1,174	...	1,244	604	264	192	17.18	184	
Enteric	16	105	...	121	86	...	17	16.34	18	
Typhus ... ..	...	1	...	1	1	...	...	...	...
Other diseases	11	329	...	340	286	...	36	11.06	18	
Totals	370	3,074	1	3,445	1,606	1,174	321	10.39	344	

NORTH-EASTERN HOSPITAL.										
Scarlet	392	2,441	...	2,833	1,396	1,018	73	2.96	346	
Diphtheria ... ..	...	3	...	3	3	...	...	...	...
Enteric ... ..	...	1	...	1	...	...	...	...	1
Other diseases	2	79	...	81	62	...	8	10.74	11	
Totals	394	2,524	...	2,918	1,461	1,018	81	3.18	358	

NORTH-WESTERN HOSPITAL.										
Scarlet	301	2,150	...	2,451	1,010	1,076	82	3.79	283	
Diphtheria	105	894	...	999	743	...	170	18.81	86	
Enteric	15	149	...	164	115	...	26	17.93	23	
Other diseases	5	207	...	212	188	...	15	7.31	9	
Totals	426	3,400	...	3,826	2,056	1,076	293	8.58	401	

WESTERN HOSPITAL.										
Scarlet	212	1,925	1	2,138	369	1,468	82	4.26	219	
Diphtheria	102	766	...	868	422	219	135	17.50	92	
Enteric	13	64	...	77	60	...	7	10.68	10	
Other diseases	3	113	...	116	94	...	12	10.95	10	
Totals	330	2,868	1	3,199	945	1,687	236	8.22	331	

SOUTH-WESTERN HOSPITAL.										
Scarlet	215	1,380	3	1,598	676	680	55	3.93	187	
Diphtheria	45	564	...	609	376	44	95	17.60	94	
Enteric	17	94	...	111	73	...	22	23.28	16	
Other diseases	9	93	...	102	87	...	10	10.52	5	
Totals	286	2,131	3	2,420	1,212	724	182	8.56	302	

FOUNTAIN HOSPITAL.										
Scarlet	267	1,807	...	2,074	811	914	81	4.48	268	
Diphtheria	104	875	...	979	556	147	184	20.86	92	
Enteric ... ..	...	...	...	...	...	...	...	...	...
Other diseases	1	113	...	114	105	...	5	4.48	4	
Totals	372	2,795	...	3,167	1,472	1,061	270	9.63	364	

Admissions, Discharges, and Deaths during 1897.

SOUTH-EASTERN HOSPITAL.

DISEASES.	Remain- ing on Dec. 31st, 1896.	Admitted during 1897.		Total under treatment during 1897.	Discharged during 1897.		Died during 1897.	Mortality per cent.	Remain- ing on Dec. 31st, 1897.
		Direct from homes.	From other Hospitals of Board.		Re- covered.	To other Hospitals of Board.			
Scarlet	194	1,696	3	1,893	555	1,026	76	4·53	236
Diphtheria	131	707	...	838	523	78	122	17·06	115
Enteric	32	174	...	206	149	...	34	19·04	23
Typhus	1	1	...	2	2	...	...	...	...
Other diseases	8	312	...	320	263	...	34	11·14	23
Totals	366	2,890	3	3,259	1,492	1,104	266	9·24	397

PARK HOSPITAL.

Scarlet ... ..	...	231	...	231	23	...	12	9·02	196
Diphtheria ... ..	...	42	...	42	...	...	4	17·39	38
Enteric ... ..	...	...	...	...	...	...	...	...	...
Other Diseases ... ..	...	8	...	8	2	...	2	33·33	4
Total ... ..	...	281	...	281	25	...	18	11·11	238

BROOK HOSPITAL.

Scarlet	382	2,018	...	2,400	1,021	972	62	3·04	345
Diphtheria	104	648	...	752	549	...	84	13·11	119
Enteric	15	77	...	92	59	...	18	23·38	15
Other diseases	9	163	...	172	136	...	18	11·35	18
Totals	510	2,906	...	3,416	1,765	972	182	6·24	497

NORTHERN HOSPITAL.

Scarlet	789	...	4,533	5,322	4,536	3	9	0·198	774
Diphtheria	63	...	752	815	722	...	1	0·134	92
Other diseases ... ..	...	...	...	...	...	...	...	...	...
Totals	852	...	5,285	6,137	5,258	3	10	0·189	866

GORE FARM HOSPITAL.

Scarlet	660	...	3,531	4,191	3,605	5	11	0·307	570
Diphtheria ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	...	...	...	...	...	...	...	...	...
Totals	660	...	3,531	4,191	3,605	5	11	0·307	570

SUMMARY.

Scarlet	3,685	15,113	8,972	18,798	14,631	8,072	619	4·07	3,548
Diphtheria	724	5,673	752	6,397	4,498	752	987	17·69	912
Enteric	108	664	...	772	542	...	124	18·64	106
Typhus	1	2	...	3	3	...	...	...	...
Totals	4,518	21,452	8,824	25,970	19,674	8,824	1,730	8·07	4,566
Other diseases	48	1,417	...	1,465	1,223	...	140	10·07	102
Grand Totals	4,566	22,869	8,824	27,435	20,897	8,824	1,870	8·19	4,668

NOTES.—The mortalities returned as above include all deaths occurring from intercurrent diseases, particulars of which will be found in the Annual Reports of the Medical Superintendents.

The mortality rates are calculated according to the Registrar-General's Formula—i.e., by dividing the Deaths, multiplied by 100, by half the sum of the Admissions, Discharges, and Deaths for the year.

FEVER STATISTICS.—TABLE II.—*Showing the Monthly Admissions*

EASTERN HOSPITAL.													
MONTH.	ADMISSIONS.										DEATHS.	DISCHARGES.	
	Scarlet.		Diphtheria.		Enteric.		Typhus.	Other Diseases.		Total.		Re-covered.	To other Hospitals of Board.
	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.		Direct from Homes.	From other Hospitals of Board.				
Jan.	144	...	61	...	6	...	...	27	...	238	25	123	107
Feb.	123	...	56	...	8	...	...	15	...	202	25	116	80
Mar.	142	...	57	...	9	...	...	21	...	229	23	128	80
April	131	...	46	...	2	...	...	24	...	203	27	127	63
May	109	...	52	...	5	...	...	27	...	193	15	147	67
June	122	...	108	...	8	...	1	33	...	272	17	127	88
July	132	...	110	...	12	...	...	26	...	280	26	123	150
Aug.	132	...	130	...	12	...	...	24	...	298	24	93	129
Sept.	138	...	150	...	13	...	...	30	...	331	28	156	135
Oct.	107	...	131	...	7	...	...	33	...	278	33	147	112
Nov.	113	...	127	...	9	...	...	40	...	289	33	138	109
Dec.	72	1	146	...	14	...	...	29	...	262	45	181	54
Totals	1,465	1	1,174	...	105	...	1	329	...	3,075	321	1,606	1,174

NORTH-EASTERN HOSPITAL.													
Jan.	165	...	...	...	...	...	...	1	...	166	7	160	73
Feb.	121	...	1	...	...	...	...	4	...	126	4	97	66
Mar.	150	...	...	...	...	...	...	6	...	156	6	118	24
April	160	...	...	...	...	...	...	6	...	166	8	113	80
May	172	...	1	...	...	...	...	5	...	178	5	67	83
June	192	...	...	...	...	...	...	10	...	202	0	87	64
July	260	...	1	...	...	...	...	10	...	271	12	121	93
Aug.	281	...	...	...	...	...	...	10	...	291	14	99	114
Sept.	260	...	...	...	...	...	...	7	...	267	4	121	148
Oct.	257	...	...	...	1	...	...	4	...	262	5	156	99
Nov.	250	...	...	...	...	...	...	6	...	256	6	155	98
Dec.	173	...	...	...	...	...	...	10	...	183	10	167	76
Totals	2,441	...	3	...	1	...	...	79	...	2,524	81	1,461	1,018

NORTH-WESTERN HOSPITAL.													
Jan.	151	...	62	...	5	...	...	7	...	225	32	163	30
Feb.	113	...	39	...	7	...	...	18	...	177	12	203	36
Mar.	125	...	76	...	8	...	...	15	...	224	20	170	52
April	141	...	55	...	...	...	...	17	...	213	9	155	40
May	177	...	82	...	5	...	...	13	...	277	28	133	44
June	149	...	67	...	5	...	...	21	...	242	15	179	78
July	197	...	100	...	13	...	...	15	...	325	23	167	97
Aug.	188	...	73	...	25	...	...	15	...	301	26	137	99
Sept.	259	...	72	...	18	...	...	18	...	367	32	167	165
Oct.	235	...	97	...	24	...	...	34	...	390	32	188	171
Nov.	233	...	78	...	18	...	...	24	...	353	28	161	171
Dec.	182	...	93	...	21	...	...	10	...	306	36	233	93
Totals	2,150	...	894	...	149	...	...	207	...	3,400	293	2,056	1,076

WESTERN HOSPITAL.													
Jan.	134	...	60	...	3	...	...	4	...	201	22	65	110
Feb.	96	...	54	...	5	...	...	6	...	161	15	71	104
Mar.	105	...	66	...	...	...	...	8	...	179	12	96	95
April	121	...	54	...	8	...	...	4	...	187	11	69	114
May	138	...	72	...	3	...	...	14	...	227	20	75	105
June	149	...	54	...	3	...	...	10	...	216	15	77	106
July	209	...	87	...	8	...	...	9	...	313	21	97	178
Aug.	208	...	71	...	7	...	...	10	...	296	29	65	196
Sept.	209	1	63	...	4	...	...	11	...	288	21	67	198
Oct.	201	...	67	...	15	...	...	14	...	297	25	197	161
Nov.	215	...	62	...	5	...	...	5	...	287	19	89	197
Dec.	140	...	56	...	3	...	...	18	...	217	26	77	123
Totals	1,925	1	766	...	64	...	...	113	...	2,869	236	945	1,687

of various Diseases, with Discharges and Deaths from all causes during 1897.

SOUTH-WESTERN HOSPITAL.													
MONTH.	ADMISSIONS.										DEATHS.	DISCHARGES.	
	Scarlet.		Diphtheria.		Enteric.		Typhus.	Other Diseases.		Total.		Re-covered.	To other Hospitals of Board.
	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.		Direct from Homes.	From other Hospitals of Board.				
Jan.	98	...	40	...	9	...	...	7	...	154	15	122	25
Feb.	106	...	39	...	12	...	...	11	...	168	17	109	43
Mar.	94	...	33	...	2	...	...	6	...	135	9	94	35
April	72	...	32	...	...	...	...	5	...	109	7	109	30
May	105	...	33	...	4	...	...	11	...	153	11	95	39
June	116	...	37	...	7	...	...	10	...	170	9	93	58
July	168	...	70	...	6	...	...	12	...	256	20	99	95
Aug.	145	...	54	...	12	...	...	7	...	218	11	93	95
Sept.	113	...	54	...	11	...	...	6	...	184	15	106	64
Oct.	174	...	65	...	14	...	...	8	...	261	21	121	126
Nov.	141	...	56	...	13	...	...	6	...	216	27	94	89
Dec.	48	3	51	...	4	...	...	4	...	110	20	77	25
Totals	1,380	3	564	...	94	...	...	93	...	2,134	182	1,212	724
FOUNTAIN HOSPITAL.													
Jan.	129	...	81	...	...	...	...	5	...	215	32	95	81
Feb.	110	...	66	...	...	...	...	10	...	186	25	134	84
Mar.	106	...	87	...	...	...	...	2	...	195	21	151	17
April	89	...	64	...	...	...	...	4	...	157	17	129	62
May	142	...	86	...	...	...	...	5	...	233	24	90	96
June	114	...	57	...	...	...	...	11	...	182	23	91	61
July	182	...	87	...	...	...	...	13	...	282	28	128	76
Aug.	164	...	54	...	...	...	...	9	...	227	15	110	68
Sept.	183	...	70	...	...	...	...	12	...	265	21	143	90
Oct.	243	...	71	...	...	...	...	10	...	324	15	159	166
Nov.	158	...	87	...	...	...	...	20	...	265	31	94	138
Dec.	187	...	65	...	...	...	...	12	...	264	18	148	122
Totals	1,807	...	875	...	...	...	...	113	...	2,795	270	1,472	1,061
SOUTH-EASTERN HOSPITAL.													
Jan.	82	...	51	...	20	...	...	13	...	166	12	110	74
Feb.	100	...	59	...	10	...	...	14	...	183	14	126	69
Mar.	81	...	71	...	12	...	...	15	...	179	19	126	38
April	103	...	54	...	7	...	...	20	...	184	16	87	90
May	105	...	51	...	4	...	...	22	...	182	19	91	51
June	120	...	72	...	6	...	...	27	...	225	11	126	56
July	175	1	50	...	7	...	...	37	...	270	28	107	94
Aug.	205	1	58	...	25	...	...	33	...	322	34	113	123
Sept.	183	...	53	...	30	...	...	32	...	298	24	151	138
Oct.	214	1	53	...	20	...	...	44	...	332	25	157	143
Nov.	164	...	69	...	18	...	1	26	...	278	31	145	114
Dec.	164	...	66	...	15	...	...	29	...	274	33	153	114
Totals	1,696	3	707	...	174	...	1	312	...	2,893	266	1,492	1,104
PARK HOSPITAL.													
Jan.	...	...	...	...	...	...	...	...	...	...	...	...	...
Feb.	...	...	...	...	...	...	...	...	...	...	...	...	...
Mar.	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...
Aug.	...	...	...	...	...	...	...	...	...	...	...	...	...
Sept.	...	...	...	...	...	...	...	...	...	...	...	...	...
Oct.	...	...	...	...	...	...	...	...	...	...	...	...	...
Nov.	197	...	...	...	...	...	...	4	...	201	6	...	...
Dec.	34	...	42	...	...	...	...	4	...	80	12	25	...
Totals	231	...	42	...	...	...	...	8	...	281	18	25	...

FEVER STATISTICS.—TABLE II. (continued)—Showing the Monthly Admissions of various Diseases, with Discharges and Deaths from all causes during 1897.

BROOK HOSPITAL.

MONTH.	ADMISSIONS.										DEATHS.	DISCHARGES.	
	Scarlet.		Diphtheria.		Enteric.		Typhus.	Other Diseases.		Total.		Re-covered.	To other Hospitals of Board.
	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.	Direct from Homes.	From other Hospitals of Board.		Direct from Homes.	From other Hospitals of Board.				
Jan.	160	...	57	...	6	...	...	7	...	230	16	146	77
Feb.	128	...	48	...	4	...	...	12	...	192	8	142	72
March	130	...	36	...	7	...	...	6	...	179	14	166	10
April	116	...	49	...	1	...	...	7	...	173	15	175	17
May	147	...	42	...	1	...	...	18	...	208	15	159	45
June	180	...	43	...	2	...	...	24	...	249	15	124	46
July	226	...	52	...	1	...	...	12	...	291	18	134	153
Aug.	190	...	69	...	8	...	...	18	...	285	13	99	127
Sept.	154	...	56	...	21	...	...	10	...	241	20	117	97
Oct.	228	...	58	...	9	...	...	19	...	314	19	162	117
Nov.	196	...	80	...	12	...	...	12	...	300	12	182	113
Dec.	163	...	58	...	5	...	...	18	...	244	17	159	98
Totals	2,018	...	648	...	77	...	...	163	...	2,906	182	1,765	972

NORTHERN HOSPITAL.

Jan.	...	291	...	45	...	...	...	...	...	336	3	434	...
Feb.	...	252	...	55	...	...	...	...	...	307	2	449	...
March	...	234	...	66	...	...	...	...	...	300	...	350	...
April	...	267	...	58	...	...	...	...	...	325	...	397	...
May	...	274	...	73	...	...	...	...	...	347	1	354	...
June	...	307	...	68	...	...	...	...	...	375	...	275	...
July	...	479	...	66	...	...	...	...	...	545	1	485	...
Aug.	...	468	...	78	...	...	...	...	...	546	1	467	1
Sept.	...	592	...	71	...	...	...	...	...	663	...	552	1
Oct.	...	518	...	60	...	...	...	...	...	578	...	584	...
Nov.	...	514	...	94	...	...	...	...	...	608	...	573	...
Dec.	...	337	...	18	...	...	...	...	...	355	2	338	1
Totals	...	4,533	...	752	...	...	...	...	...	5,285	10	5,258	3

GORE FARM HOSPITAL.

Jan.	...	241	...	...	...	...	...	...	...	241	...	326	...
Feb.	...	247	...	...	...	...	...	...	...	247	2	346	...
Mar.	...	51	...	...	...	...	...	...	...	51	...	272	...
April	...	171	...	...	...	...	...	...	...	171	...	159	...
May	...	183	...	...	...	...	...	...	...	183	...	114	...
June	...	182	...	...	...	...	...	...	...	182	1	122	...
July	...	391	...	...	...	...	...	...	...	391	1	265	1
Aug.	...	405	...	...	...	...	...	...	...	405	2	267	...
Sept.	...	372	...	...	...	...	...	...	...	372	1	323	...
Oct.	...	517	...	...	...	...	...	...	...	517	1	521	1
Nov.	...	421	...	...	...	...	...	...	...	421	...	419	...
Dec.	...	350	...	...	...	...	...	...	...	350	3	471	3
Totals	...	3,531	...	...	...	...	...	...	...	3,531	11	3,605	5

SUMMARY.

Jan.	1,063	532	412	45	49	...	...	71	...	1,595	164	1,743	577
Feb.	897	499	362	55	46	...	...	90	...	1,395	124	1,793	554
March	933	285	426	66	38	...	...	79	...	1,476	124	1,671	351
April	933	438	354	58	18	...	...	87	...	1,392	110	1,520	496
May	1,095	457	419	73	22	...	...	115	...	1,651	138	1,325	530
June	1,142	489	438	68	31	...	1	146	...	1,758	106	1,301	557
July	1,549	871	557	66	47	...	...	134	...	2,287	178	1,726	936
Aug.	1,513	874	509	78	89	...	...	126	...	2,237	169	1,543	952
Sept.	1,499	965	518	71	97	...	...	126	...	2,240	166	1,903	1,036
Oct.	1,659	1,036	542	60	90	...	...	166	...	2,457	176	2,292	1,097
Nov.	1,667	935	559	94	75	...	1	143	...	2,445	193	2,050	1,029
Dec.	1,163	691	577	18	62	...	...	134	...	1,936	222	2,030	709
Grand Totals	15,113	8,072	5,673	752	664	...	2	1,417	...	22,869	1,870	20,897	8,824

FEVER STATISTICS—TABLE III.—*Showing the Admissions and Deaths of Patients from the several Parishes and Unions during 1897.*

[illegible]

FEVER STATISTICS.—TABLE IV.—Scarlet Fever

EASTERN HOSPITAL.					NORTH-EASTERN HOSPITAL.					NORTH-WESTERN HOSPITAL.							
AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.
	Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.	
Under 1	16	3	13	7	10	Under 1	17	4	19	1	36	Under 1	7	1	10	...	17
1 to 2	47	11	34	3	14	1 to 2	52	4	50	9	102	1 to 2	36	6	45	2	81
2 to 3	66	5	68	9	14	2 to 3	89	7	104	13	193	2 to 3	74	13	80	4	154
3 to 4	96	6	87	10	16	3 to 4	120	12	129	19	249	3 to 4	112	8	105	6	217
4 to 5	103	5	92	3	8	4 to 5	80	5	131	9	211	4 to 5	123	10	137	6	260
5 to 10	285	7	238	2	9	5 to 10	474	5	469	12	943	5 to 10	295	7	583	16	878
10 to 15	125	1	95	...	1	10 to 15	245	4	216	4	461	10 to 15	79	...	251	1	330
15 to 20	30	2	31	1	3	15 to 20	89	1	54	1	143	15 to 20	27	...	68	...	95
20 to 25	8	1	12	...	1	20 to 25	31	1	17	1	48	20 to 25	14	1	39	1	53
25 to 30	6	...	5	...	...	25 to 30	13	...	18	...	31	25 to 30	7	...	20	...	27
30 to 35	2	...	4	...	...	30 to 35	4	...	12	...	16	30 to 35	4	...	19	...	23
35 to 40	...	...	...	...	...	35 to 40	3	...	3	...	6	35 to 40	2	...	9	...	11
40 to 45	1	...	...	...	...	40 to 45	...	...	2	...	2	40 to 45	...	...	1	...	1
45 to 50	...	...	1	...	...	45 to 50	...	...	...	...	...	45 to 50	1	...	...	...	...
50 to 55	...	...	...	...	...	50 to 55	...	...	...	...	...	50 to 55	...	...	...	...	...
55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...
And upwards	...	...	...	...	...	And upwards	...	...	...	...	...	And upwards	...	...	...	...	...
Totals...	785	41	680	35	76	Totals...	1,217	43	1,224	30	2,441	Totals	781	46	1,369	36	2,150
WESTERN HOSPITAL.					SOUTH-WESTERN HOSPITAL.					FOUNTAIN HOSPITAL.							
AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.
	Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.	
Under 1	19	3	11	6	9	Under 1	7	2	7	3	5	Under 1	5	2	12	3	5
1 to 2	32	4	49	6	10	1 to 2	28	6	25	5	11	1 to 2	17	6	31	5	11
2 to 3	65	5	79	8	13	2 to 3	55	7	42	4	11	2 to 3	68	16	63	2	18
3 to 4	85	8	88	14	22	3 to 4	76	8	50	2	10	3 to 4	71	9	95	7	16
4 to 5	92	2	115	3	5	4 to 5	64	2	61	2	4	4 to 5	96	7	70	3	10
5 to 10	283	5	471	15	20	5 to 10	315	8	243	1	9	5 to 10	368	6	404	10	16
10 to 15	124	...	204	...	...	10 to 15	131	2	100	2	4	10 to 15	171	1	179	1	2
15 to 20	38	1	65	1	2	15 to 20	65	...	24	...	...	15 to 20	57	1	41	1	2
20 to 25	21	...	27	...	...	20 to 25	20	...	24	...	...	20 to 25	11	1	21	...	1
25 to 30	8	...	15	...	...	25 to 30	11	...	8	...	...	25 to 30	5	...	8	...	...
30 to 35	5	...	16	...	1	30 to 35	6	...	7	...	...	30 to 35	3	...	2	...	...
35 to 40	2	...	4	...	...	35 to 40	3	...	2	...	...	35 to 40	...	...	1	...	...
40 to 45	2	...	1	...	...	40 to 45	1	...	2	...	...	40 to 45	...	...	4	...	...
45 to 50	1	...	2	...	...	45 to 50	2	...	...	...	...	45 to 50	1	...	1	...	...
50 to 55	...	...	...	...	...	50 to 55	...	...	...	...	...	50 to 55	...	...	1	...	...
55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...
And upwards	...	...	...	...	...	And upwards	...	...	...	...	...	And upwards	...	...	...	...	...
Totals...	777	28	1,148	54	82	Totals...	785	36	595	19	55	Totals	874	49	933	32	81

Admissions and Deaths at various Ages during 1897.

AGES.	MALES.		FEMALES.		TOTAL.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Under 1	7	1	4	...	4	...
1 to 2	33	8	7	...	10	1
2 to 3	63	9	9	...	13	2
3 to 4	84	8	10	1	26	2
4 to 5	81	2	12	3	23	4
5 to 10	343	6	50	2	99	2
10 to 15	185	3	16	1	40	1
15 to 20	57	...	5	...	9	...
20 to 25	29	...	1	...	2	...
25 to 30	6	...	...	...	2	...
30 to 35	6	1	...	...	...	...
35 to 40	2	...	1	...	1	...
40 to 45	1	1	...	1	1	...
45 to 50	...	...	1	...	1	...
50 to 55	...	...	...	...	...	...
55 to 60	...	...	...	...	...	...
And upwards	...	...	...	...	...	...
Totals...	897	39	116	3	231	12

GORE FARM HOSPITAL.						
Under 1
1 to 2
2 to 3
3 to 4	2	...	3
4 to 5	...	1	...	1	...	3
5 to 10	...	2	...	2	...	3
10 to 15	...	1	2
15 to 20
20 to 25
25 to 30
30 to 35
35 to 40
40 to 45
45 to 50
50 to 55
55 to 60
And upwards
Totals...	...	6	...	5	...	11
NORTHERN HOSPITAL.						
Under 1
1 to 2
2 to 3
3 to 4	1	...	2
4 to 5	1	...	1
5 to 10	2	...	4
10 to 15	2
15 to 20
20 to 25
25 to 30
30 to 35
35 to 40
40 to 45
45 to 50
50 to 55
55 to 60
And upwards
Totals	...	5	...	4	...	9
SUMMARY.						
Under 1	...	93	17	86	22	39
1 to 2	...	282	51	292	37	88
2 to 3	...	555	68	558	47	115
3 to 4	...	736	67	746	65	132
4 to 5	...	779	41	813	31	72
5 to 10	...	2,826	53	3,206	77	130
10 to 15	...	1,270	17	1,362	6	23
15 to 20	...	430	5	382	3	8
20 to 25	...	156	4	186	1	5
25 to 30	...	71	1	101	...	1
30 to 35	...	33	1	70	1	2
35 to 40	...	17	...	21
40 to 45	...	7	3	15	...	3
45 to 50	...	7	...	6	1	1
50 to 55	...	3	...	3
55 to 60
And upwards
Grand Totals	...	7,265	328	7,848	291	619

FEVER STATISTICS.—TABLE V.—*Diphtheria*

EASTERN HOSPITAL.				NORTH-EASTERN HOSPITAL.				NORTH-WESTERN HOSPITAL.			
AGES.	MALES.		TOTAL.	AGES.	MALES.		TOTAL.	AGES.	MALES.		TOTAL.
	Admitted.	Died.			Admitted.	Died.			Admitted.	Died.	
Under 1	8	4	12	Under 1	...	...	...	Under 1	...	...	...
1 to 2	55	13	97	1 to 2	...	...	...	1 to 2	...	...	...
2 to 3	76	25	147	2 to 3	...	...	...	2 to 3	...	...	...
3 to 4	82	15	164	3 to 4	...	...	...	3 to 4	...	...	...
4 to 5	80	15	164	4 to 5	...	...	...	4 to 5	...	...	...
5 to 10	167	34	355	5 to 10	...	...	...	5 to 10	...	...	...
10 to 15	58	...	123	10 to 15	...	...	...	10 to 15	...	...	...
15 to 20	21	1	53	15 to 20	...	...	...	15 to 20	...	...	...
20 to 25	7	...	29	20 to 25	...	...	...	20 to 25	...	...	...
25 to 30	3	...	16	25 to 30	...	...	...	25 to 30	...	...	...
30 to 35	3	...	6	30 to 35	...	...	...	30 to 35	...	...	...
35 to 40	2	...	7	35 to 40	...	...	...	35 to 40	...	...	...
40 to 45	...	...	...	40 to 45	...	...	...	40 to 45	...	...	...
45 to 50	...	...	...	45 to 50	...	...	...	45 to 50	...	...	...
50 to 55	...	...	1	50 to 55	...	...	...	50 to 55	...	...	...
55 to 60	...	...	...	55 to 60	...	...	...	55 to 60	...	...	...
And upwards	...	...	...	And upwards	...	...	...	And upwards	...	...	...
Totals ...	562	107	1,174	Totals ...	2	1	3	Totals ...	372	78	894
WESTERN HOSPITAL.				SOUTH-WESTERN HOSPITAL.				FOUNTAIN HOSPITAL.			
AGES.	MALES.		TOTAL.	AGES.	MALES.		TOTAL.	AGES.	MALES.		TOTAL.
	Admitted.	Died.			Admitted.	Died.			Admitted.	Died.	
Under 1	9	1	15	Under 1	...	...	...	Under 1	...	...	...
1 to 2	29	13	47	1 to 2	...	...	...	1 to 2	...	...	...
2 to 3	29	10	56	2 to 3	...	...	...	2 to 3	...	...	...
3 to 4	45	16	96	3 to 4	...	...	...	3 to 4	...	...	...
4 to 5	42	7	95	4 to 5	...	...	...	4 to 5	...	...	...
5 to 10	111	14	247	5 to 10	...	...	...	5 to 10	...	...	...
10 to 15	50	2	98	10 to 15	...	...	...	10 to 15	...	...	...
15 to 20	15	1	36	15 to 20	...	...	...	15 to 20	...	...	...
20 to 25	8	2	21	20 to 25	...	...	...	20 to 25	...	...	...
25 to 30	6	...	25	25 to 30	...	...	...	25 to 30	...	...	...
30 to 35	6	...	11	30 to 35	...	...	...	30 to 35	...	...	...
35 to 40	4	...	7	35 to 40	...	...	...	35 to 40	...	...	...
40 to 45	3	...	3	40 to 45	...	...	...	40 to 45	...	...	...
45 to 50	1	...	1	45 to 50	...	...	...	45 to 50	...	...	...
50 to 55	...	...	1	50 to 55	...	...	...	50 to 55	...	...	...
55 to 60	...	...	1	55 to 60	...	...	...	55 to 60	...	...	...
And upwards	...	...	...	And upwards	...	...	...	And upwards	...	...	...
Totals ...	358	67	766	Totals ...	280	98	504	Totals ...	600	100	1000

missions and Deaths at various ages during 1897.

AGES.	MALES.		FEMALES.		TOTAL.		AGES.	MALES.		FEMALES.		TOTAL.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Under 1	12	6	4	2	16	8	Under 1	8	...	8	1	16	1
1 to 2	20	9	26	8	46	17	1 to 2	15	4	19	6	34	10
2 to 3	38	10	48	12	86	22	2 to 3	19	4	30	4	49	8
3 to 4	38	7	39	9	77	16	3 to 4	41	8	34	4	75	12
4 to 5	44	13	54	9	98	22	4 to 5	36	8	32	4	68	12
5 to 10	98	18	130	14	228	32	5 to 10	107	17	136	17	243	34
10 to 15	38	2	53	2	91	4	10 to 15	47	2	43	2	90	4
15 to 20	15	...	14	...	29	...	15 to 20	13	1	19	...	32	1
20 to 25	3	...	11	1	14	1	20 to 25	11	1	12	...	23	1
25 to 30	1	...	6	...	7	...	25 to 30	2	...	4	...	6	...
30 to 35	4	...	5	...	9	...	30 to 35	3	1	5	...	8	1
35 to 40	3	...	1	...	4	...	35 to 40	...	...	1	...	1	...
40 to 45	1	...	1	...	2	...	40 to 45	1	...	1	...	2	...
45 to 50	...	...	...	...	...	...	45 to 50	...	...	...	...	...	...
50 to 55	...	...	...	...	...	...	50 to 55	...	...	...	...	...	...
55 to 60	...	...	...	...	...	...	55 to 60	...	...	1	...	1	...
And upwards	...	...	...	...	...	...	And upwards	...	...	...	...	...	...
Totals ..	315	65	392	57	707	122	Totals ..	303	46	345	38	648	84

SUMMARY.													
Under 1	56	15	43	17	99	32	Under 1	56	15	43	17	99	32
1 to 2	206	67	165	51	371	118	1 to 2	206	67	165	51	371	118
2 to 3	257	72	292	76	549	148	2 to 3	257	72	292	76	549	148
3 to 4	355	84	354	78	709	162	3 to 4	355	84	354	78	709	162
4 to 5	310	70	378	73	688	143	4 to 5	310	70	378	73	688	143
5 to 10	889	154	1,073	169	1,962	323	5 to 10	889	154	1,073	169	1,962	323
10 to 15	310	19	378	14	688	33	10 to 15	310	19	378	14	688	33
15 to 20	100	3	145	3	245	6	15 to 20	100	3	145	3	245	6
20 to 25	50	4	92	2	142	6	20 to 25	50	4	92	2	142	6
25 to 30	23	2	69	1	92	3	25 to 30	23	2	69	1	92	3
30 to 35	23	2	38	7	61	9	30 to 35	23	2	38	7	61	9
35 to 40	13	1	22	3	35	4	35 to 40	13	1	22	3	35	4
40 to 45	6	...	12	...	18	...	40 to 45	6	...	12	...	18	...
45 to 50	2	...	4	...	6	...	45 to 50	2	...	4	...	6	...
50 to 55	1	...	3	...	4	...	50 to 55	1	...	3	...	4	...
55 to 60	...	...	4	...	4	...	55 to 60	...	...	4	...	4	...
And upwards	...	...	...	...	...	...	And upwards	...	...	...	...	...	...
Grand Totals	2,601	493	3,072	494	5,673	987	Grand Totals	2,601	493	3,072	494	5,673	987

NORTHERN HOSPITAL.													
Under 1	...	...	...	...	...	...	Under 1	...	...	...	...	...	...
1 to 2	...	...	...	...	...	...	1 to 2	...	...	...	...	...	...
2 to 3	...	...	...	...	...	...	2 to 3	...	...	...	...	...	...
3 to 4	...	...	...	...	...	1	3 to 4	...	...	...	...	...	...
4 to 5	...	...	...	...	...	...	4 to 5	...	...	...	...	...	...
5 to 10	...	...	...	...	...	...	5 to 10	...	...	...	...	...	...
10 to 15	...	...	...	...	...	...	10 to 15	...	...	...	...	...	...
15 to 20	...	...	...	...	...	...	15 to 20	...	...	...	...	...	...
20 to 25	...	...	...	...	...	...	20 to 25	...	...	...	...	...	...
25 to 30	...	...	...	...	...	...	25 to 30	...	...	...	...	...	...
30 to 35	...	...	...	...	...	...	30 to 35	...	...	...	...	...	...
35 to 40	...	...	...	...	...	...	35 to 40	...	...	...	...	...	...
40 to 45	...	...	...	...	...	...	40 to 45	...	...	...	...	...	...
45 to 50	...	...	...	...	...	...	45 to 50	...	...	...	...	...	...
50 to 55	...	...	...	...	...	...	50 to 55	...	...	...	...	...	...
55 to 60	...	...	...	...	...	...	55 to 60	...	...	...	...	...	...
And upwards	...	...	...	...	...	...	And upwards	...	...	...	...	...	...
Totals ..	...	1	...	...	...	1	Totals ..	...	1	...	...	...	1

GORE FARM HOSPITAL.													
Under 1	...	...	...	...	...	...	Under 1	...	...	...	...	...	...
1 to 2	...	...	...	...	...	...	1 to 2	...	...	...	...	...	...
2 to 3	...	...	...	...	...	...	2 to 3	...	...	...	...	...	...
3 to 4	...	...	...	...	...	...	3 to 4	...	...	...	...	...	...
4 to 5	...	...	...	...	...	...	4 to 5	...	...	...	...	...	...
5 to 10	...	...	...	...	...	...	5 to 10	...	...	...	...	...	...
10 to 15	...	...	...	...	...	...	10 to 15	...	...	...	...	...	...
15 to 20	...	...	...	...	...	...	15 to 20	...	...	...	...	...	...
20 to 25	...	...	...	...	...	...	20 to 25	...	...	...	...	...	...
25 to 30	...	...	...	...	...	...	25 to 30	...	...	...	...	...	...
30 to 35	...	...	...	...	...	...	30 to 35	...	...	...	...	...	...
35 to 40	...	...	...	...	...	...	35 to 40	...	...	...	...	...	...
40 to 45	...	...	...	...	...	...	40 to 45	...	...	...	...	...	...
45 to 50	...	...	...	...	...	...	45 to 50	...	...	...	...	...	...
50 to 55	...	...	...	...	...	...	50 to 55	...	...	...	...	...	...
55 to 60	...	...	...	...	...	...	55 to 60	...	...	...	...	...	...
And upwards	...	...	...	...	...	...	And upwards	...	...	...	...	...	...
Totals ..	...	...	...	...	...	...	Totals ..	...	...	...	...	...	...

FEVER STATISTICS.—TABLE VI.—*Enteric Fever.*

EASTERN HOSPITAL.							NORTH-EASTERN HOSPITAL.						
AGES.		MALES.		FEMALES.		TOTAL.	AGES.		MALES.		FEMALES.		TOTAL.
		Admitted.	Died.	Admitted.	Died.				Admitted.	Died.	Admitted.	Died.	
Under 5	...	1	...	3	...	4	...	Under 5	...	...	...	...	...
5 to 10	...	9	...	10	2	19	2	5 to 10	...	...	...	...	...
10 to 15	...	18	1	14	1	32	2	10 to 15	...	...	...	1	...
15 to 20	...	7	1	10	2	17	3	15 to 20	...	...	...	...	...
20 to 25	...	6	5	6	2	12	7	20 to 25	...	...	...	...	...
25 to 30	...	9	1	3	1	12	2	25 to 30	...	...	...	...	...
30 to 35	...	2	...	3	1	5	1	30 to 35	...	...	...	...	...
35 to 40	...	...	...	1	...	1	...	35 to 40	...	...	...	...	...
40 to 45	...	...	...	1	...	1	...	40 to 45	...	...	...	...	...
45 to 50	...	...	...	1	...	1	...	45 to 50	...	...	...	...	...
50 to 55	...	...	...	...	...	...	...	50 to 55	...	...	...	...	...
55 to 60	...	1	...	...	...	1	...	55 to 60	...	...	...	...	...
And upwards	...	...	...	...	...	...	...	And upwards	...	...	...	...	...
Totals	...	53	8	52	9	105	17	Totals	...	...	...	1	...

NORTH-WESTERN HOSPITAL.							WESTERN HOSPITAL.								
Under 5	...	1	...	1	...	2	...	Under 5	...	2	2	...
5 to 10	...	11	...	11	...	22	3	5 to 10	...	6	9	...
10 to 15	...	16	...	8	...	24	5	10 to 15	...	9	1	3	...	12	1
15 to 20	...	12	...	13	2	25	4	15 to 20	...	6	1	5	...	11	1
20 to 25	...	11	...	14	1	25	8	20 to 25	...	4	...	1	...	5	...
25 to 30	...	14	...	8	3	22	5	25 to 30	...	7	3	5	...	12	3
30 to 35	...	7	...	10	1	17	1	30 to 35	3	...	3	...
35 to 40	...	2	...	6	...	8	...	35 to 40	...	4	...	1	...	5	...
40 to 45	...	2	...	2	...	4	...	40 to 45	...	3	3	...
45 to 50	45 to 50
50 to 55	50 to 55
55 to 60	55 to 60	...	1	1	...
And upwards	And upwards	1	...	1	...
Totals	...	76	18	73	8	149	26	Totals	...	42	5	22	2	64	7

Admissions and Deaths at various ages during 1897.

SOUTH-WESTERN HOSPITAL.					FOUNTAIN HOSPITAL.					SOUTH-EASTERN HOSPITAL.							
AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.	AGES.	MALES.		FEMALES.		TOTAL.
	Ad- mitted.	Died.	Ad- mitted.	Died.			Ad- mitted.	Died.	Ad- mitted.	Died.			Ad- mitted.	Died.	Ad- mitted.	Died.	
Under 5	1	...	1	...	...	Under 5	...	...	...	...	...	Under 5	1	...	2	...	...
5 to 10	10	1	6	...	16	5 to 10	...	...	...	...	...	5 to 10	14	1	7	...	21
10 to 15	12	2	9	...	21	10 to 15	...	...	...	...	...	10 to 15	17	3	17	...	34
15 to 20	3	...	5	1	8	15 to 20	...	...	...	...	...	15 to 20	15	7	8	1	23
20 to 25	8	1	7	2	15	20 to 25	...	...	...	...	...	20 to 25	20	2	13	...	33
25 to 30	7	2	5	1	12	25 to 30	...	...	...	...	...	25 to 30	17	4	14	6	31
30 to 35	4	1	4	2	8	30 to 35	...	...	...	...	...	30 to 35	5	2	5	2	10
35 to 40	3	2	4	2	7	35 to 40	...	...	...	...	...	35 to 40	6	1	4	2	10
40 to 45	1	1	1	...	2	40 to 45	...	...	...	...	...	40 to 45	4	1	...	...	4
45 to 50	...	...	1	...	1	45 to 50	...	...	...	...	...	45 to 50	1	...	2	...	3
50 to 55	...	...	...	...	...	50 to 55	...	...	...	...	...	50 to 55	...	...	2	...	2
55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...	55 to 60	...	...	...	...	...
And upwards	...	...	2	2	2	And upwards	...	...	...	...	...	And upwards	...	...	...	...	...
Totals	49	10	45	12	94	Totals	...	...	...	...	...	Totals	100	21	74	13	174
PARK HOSPITAL.					...	BROOK HOSPITAL.					...	SUMMARY.					...
AGES.	MALES.	FEMALES.	TOTAL.	AGES.		MALES.	FEMALES.	TOTAL.	AGES.	MALES.		FEMALES.	TOTAL.				
Under 5	...	...	...	...	Under 5	...	...	...	Under 5	...	...	Under 5	7	1	7	...	14
5 to 10	...	...	...	...	5 to 10	...	...	...	5 to 10	...	...	5 to 10	58	5	46	3	104
10 to 15	...	...	...	...	10 to 15	...	...	...	10 to 15	...	...	10 to 15	76	7	61	6	137
15 to 20	...	...	...	...	15 to 20	...	...	...	15 to 20	...	...	15 to 20	50	14	46	6	96
20 to 25	...	...	...	...	20 to 25	...	...	...	20 to 25	...	...	20 to 25	54	13	47	6	101
25 to 30	...	...	...	...	25 to 30	...	...	...	25 to 30	...	...	25 to 30	57	16	40	13	97
30 to 35	...	...	...	...	30 to 35	...	...	...	30 to 35	...	...	30 to 35	26	10	27	8	53
35 to 40	...	...	...	...	35 to 40	...	...	...	35 to 40	...	...	35 to 40	15	5	18	4	33
40 to 45	...	...	...	...	40 to 45	...	...	...	40 to 45	...	...	40 to 45	11	2	5	2	16
45 to 50	...	...	...	...	45 to 50	...	...	...	45 to 50	...	...	45 to 50	1	...	4	...	5
50 to 55	...	...	...	...	50 to 55	...	...	...	50 to 55	...	...	50 to 55	...	...	2	...	2
55 to 60	...	...	...	...	55 to 60	...	...	...	55 to 60	...	...	55 to 60	2	...	1	1	3
And upwards	...	...	...	...	And upwards	...	...	...	And upwards	...	...	And upwards	...	...	3	2	3
Totals	...	...	...	...	Totals	37	11	40	7	77	18	Grand Totals	357	73	307	51	664
Totals				...	Totals				18	Totals				124			

FEVER STATISTICS.—TABLE VIII.—*Details of*

Diseases as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Scarlet Fever	370	GENERAL DISEASES.						
		<i>Specific Febrile.</i>						
		Chickenpox ... ..	...	...	...	...	2	...
		Influenza	1	...	1	...	...	...
		Measles	9	5	6	1	...	...
		Whooping-cough	1	...	1	...	1	...
		Febricula	1	...	...	...	...	...
		Septicæmia, Puerperal	1	1	...	...	1	...
		Irritant Poisoning ... ..	...	...	1	...	...	...
		Syphilis ... ..	...	...	3	...	...	...
		Gonorrhœa... ..	...	...	...	...	...	...
		Rötheln	17	...	3	...	3	...
		Tubercular Arthritis ... ..	...	...	1	1	1	...
		Septicæmia ... ..	...	...	...	...	...	...
		<i>Not classified.</i>						
		Rheumatism	1	...	...	...	...	...
		LOCAL DISEASES.						
		<i>Lymphatic System.</i>						
		Lymphadenitis ... ..	...	...	...	...	...	...
		<i>Nervous System.</i>						
		Puerperal Mania ... ..	...	...	...	...	...	...
		Tubercle, Meningeal ... ..	...	...	...	...	...	...
		<i>Circulatory System.</i>						
		Mitral Stenosis	1	1	...	...	...	...
		Pericarditis ... ..	...	...	...	...	...	...
		<i>Respiratory System.</i>						
		Pneumonia ... ..	...	...	...	...	...	...
		Pneumonia, Lobar	5	...	2	1	...	...
		„ Lobular ... ..	...	...	2	1	2	...
		Bronchitis ... ..	...	...	2	...	1	...
		Phthisis ... ..	...	...	...	...	...	...
		Tuberculosis (Pulmonalis) ... ..	...	...	...	...	...	...
		Pleurisy ... ..	...	...	1	1	...	...
		Laryngitis ... ..	...	...	...	...	...	...
		<i>Digestive System.</i>						
		Diarrhœa ... ..	...	...	...	...	...	...
		Enteritis ... ..	...	...	...	...	...	...
		Tonsillitis	5	...	46	...	7	...
		Carcinoma Pylori ... ..	...	...	1	1	...	...
		Stomatitis ... ..	...	...	1	...	...	...
		Gastric Catarrh ... ..	...	...	...	...	...	...
		Jaundice ... ..	...	...	1	...	...	...
		Gastro-Enteritis ... ..	...	...	2	2	...	...
		Intestinal Obstruction ... ..	...	...	...	...	...	...
		<i>Urinary System.</i>						
		Bright's Disease ... ..	...	...	...	...	...	...
		Albuminuria ... ..	...	...	...	...	...	...
		<i>Skin Diseases.</i>						
		Eczema	1	...	...	...	1	...
		Erythema	10	...	1	...	7	...
		Urticaria ... ..	...	...	...	...	...	...
		Purpura ... ..	...	...	...	...	...	...
		Lichen ... ..	...	...	...	...	...	...
		Impetigo Contagiosa ... ..	...	...	...	...	1	...
		Pityriasis Versicolor ... ..	...	...	...	...	...	...
		Dermatitis ... ..	...	...	...	...	1	...
		Phthiriasis ... ..	...	...	...	...	...	...
Carried forward ...	370	... ..	53	7	75	8	28	...

Miscellaneous Diseases admitted during 1897.

WESTERN HOSPITAL.		SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
2	1	...	1	...	...	...	2	...	8	...
...	2	...
19	4	4	...	6	1	8	3	1	1	9	...	62	15
...	1	...	2	...	...	...	3	...	9	...
...	1	...	...	...	...	...	7	...	9	...
...	2	1
...	1	...
...	3	...
...
3	...	1	...	6	...	2	...	...	...	5	...	40	...
...	2	1
...	1	1	1	1
...	1	...	2	...
...	1	...	...	...	...	...	1	...
1	1	...
...	2	2	...	...	...	...	2	2
...	1	1
...	...	1	1	...	...	...	...	...	...	...	...	1	1
...	3	...	3	...
...	...	2	...	...	...	3	...	...	...	...	...	12	1
...	...	1	...	...	...	1	1	...	...	...	...	6	2
2	2	...	...	...	2	...	9	...
...	2	1	2	1
...	2	1	...	...	...	...	2	1
...	1	1
...	1	...	...	...	...	...	1	...
...	1	...	...	...	1	...
...	1	1	1	1	...	...	...	...	2	2
5	...	9	...	6	...	21	...	...	...	14	...	113	...
...	1	1
...	1	...
...	2	...	...	...	...	...	2	...	4	...
...	1	...
1	...	1	...	...	...	1	1	...	...	...	...	5	3
...	1	1	...	...	...	...	...	...	1	1
...	1	1	...	...	...	...	1	1
...	1	...	...	...	2	...
1	...	1	...	15	...	4	...	...	...	1	...	40	...
3	...	1	...	...	...	1	...	...	...	...	...	5	...
...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	1	...
...	2	...	3	...
1	1	...
...	1	...	...	...	...	...	2	...
...	1	...	1	...
38	4	22	1	40	3	55	10	4	1	55	2	370	36

FEVER STATISTICS.—TABLE VIII. (continued)—Details

Diseases as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward	370	... ..	53	7	75	8	28	...
Scarlet Fever (continued)	96	<i>Local Injuries.</i>						
		Bursitis Patellæ ... ..	...	...	...	...	...	...
		Cut Wrist ... ..	...	...	...	...	...	...
		Burn	1	1	...	...	...	...
		Hare-lip Operation ... ..	...	...	...	...	...	...
		<i>Not Classified.</i>						
		Abdominal Myositis, with Suppuration ... ..	...	...	...	...	...	...
		Epiphysitis .. ..	...	...	...	...	...	...
		Otorrhœa ... ..	...	...	2	...	...	...
		Marasmus ... ..	...	...	...	...	...	...
		Abscesses ... ..	...	...	...	...	1	...
		No obvious disease	7	...	...	...	21	...
		Acute Necrosis of Femur	1	1	1	...	...	...
		Mammary Abscess	1	...	...	...	...	...
		Maxillary Abscess	1	...	...	...	...	...
		Dentition ... ..	...	...	...	...	7	...
		Cellulitis of Arm	1	...	...	...	...	...
		Otitis ... ..	...	...	...	...	...	...
		Cellulitis of Leg ... ..	...	...	...	...	...	...
		Psoas Abscess and Tubercular Enteritis ... ..	...	...	...	...	...	...
		Ptomaine Poisoning... ..	...	...	...	...	...	...
		Adenitis ... ..	...	...	...	...	...	...
Diphtheria	466	GENERAL DISEASES.	65	9	78	8	57	...
	88	<i>Specific Febrile.</i>						
		Rötheln ... ..	...	...	...	...	...	...
		Chickenpox ... ..	...	...	...	...	...	...
		Influenza	2	...	...	...	...	...
		Measles	12	3	...	...	1	1
		Tuberculosis, Acute	1	1	...	...	1	1
		Whooping-cough	3	1	...	...	1	1
		Febricula ... ..	...	...	...	...	1	...
		Syphilis	2	...	...	...	1	...
		Puerperal Septicæmia ... ..	...	...	...	...	...	...
		Enteric Fever ... ..	...	...	...	...	...	...
		<i>Not classified.</i>						
		Thrush ... ..	...	...	...	...	...	...
		Aphthæ ... ..	...	...	...	...	...	...
		Delirium Tremens .. ..	...	...	...	...	...	...
		Pyrexia ... ..	...	...	...	...	...	...
		Leucocythæmia	1	...	...	...	1	1
		LOCAL DISEASES.						
		<i>Nervous System.</i>						
		Meningitis ... ..	...	...	...	...	2	...
		Laryngismus Stridulus	1	...	...	...	1	...
		<i>Respiratory System.</i>						
		Pneumonia... ..	...	...	...	...	...	...
		„ Lobar	3	1	...	...	1	1
		„ Lobular	3	3	...	...	1	...
		Broncho-Pneumonia .. ..	...	...	...	...	...	...
		Pleurisy ... ..	...	...	...	...	...	...
		Bronchitis ... ..	...	...	...	...	...	...
		Coryza	2	...	...	...	...	...
		Laryngitis	1	...	...	...	...	...
	88	Carried forward	31	9	...	...	11	5
Carried forward ..	554	... ..	96	18	78		68	5

of Miscellaneous Diseases admitted during 1897.

WESTERN HOSPITAL.		SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
38	4	22	1	40	3	55	10	4	1	55	2	370	36
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	1
...	1	...	...	...	...	...	1	...
...	1	..	1	...
...	1	...	...	...	...	...	1	...
...	1	...	3	...
...	...	1	...	...	...	...	...	...	...	1	1	2	1
...	1	...
3	...	1	...	...	...	30	...	...	...	4	...	66	...
...	2	1
...	1	...
...	1	...
...	7	...
...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	1	1	1
1	1	...
...	2	...	2	...
42	4	24	1	40	3	91	10	4	1	65	4	466	40
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	...	...	1	..
...	2	...
4	1	...	...	3	2	4	1	2	1	5	3	31	12
1	1	...	...	...	...	...	...	...	...	...	...	3	3
...	1	...	...	...	...	...	5	2
...	1	...
1	4	...
...	1	...	1	...
...	1	...	...	...	...	...	...	...	1	...
...	1	...
...	1	...	...	...	...	...	...	...	1	...
...	3	...	...	...	...	...	3	...
1	1	...	...	...	...	...	...	...	...	...	...	1	1
...	1	...	...	...	...	...	1	...
...	2	1
1	1	...	...	...	...	...	...	...	...	...	...	3	1
...	2	...
...	1	...	...	...	...	...	1	...
...	...	1	1	...	...	...	...	...	...	...	...	5	3
...	...	1	...	...	...	...	...	...	...	...	...	5	3
...	2	...	...	...	...	...	1	1	3	1
...	1	...	...	...	...	...	1	...
1	2	...	...	...	...	...	...	...	3	...
3	5	...
...	1	...	...	...	...	...	2	...
12	4	2	1	10	2	13	1	2	1	7	4	88	27
54	8	26	2	50	5	104	11	6	2	72	8	554	67

FEVER STATISTICS—TABLE VIII. (continued)—Details

Diseases as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward ...	554	... ..	96	18	78	8	68	5
Brought forward— Diphtheria }	88	... ..	31	9	...	...	11	5
Diphtheria (continued) ...	555	<i>Digestive System.</i>						
		Suppurative Tonsillitis ...	...	...	...	...	...	...
		Quinsy ... ..	...	...	...	...	8	..
		Dyspepsia ... ..	...	...	...	...	...	...
		Stomatitis	4	1	...	...	...	...
		Tonsillitis	158	...	...	...	58	...
		Dentition	2	...	...	...	1	...
		Faucial Ulceration ...	1	...	...	...	...	...
		„ Cellulitis	2	...	...	...	...	...
		Glossitis ... ..	...	...	...	...	...	...
		Alveolar Abscess ...	...	...	...	...	1	...
		<i>Skin Diseases.</i>						
		Herpes ... ..	...	...	...	...	1	...
		Erythema	1	...	...	...	...	...
		<i>Lymphatic System.</i>						
		Cervical Lymphadenitis ...	1	...	...	...	...	...
		<i>Unclassified.</i>						
		No obvious disease ...	3	...	...	...	1	...
		Maxillary Abscess ...	1	..	...	...	...	...
		Cervical Cellulitis ...	1	1	...	...	...	...
		Sarcoma of Skull ...	1	1	...	...	...	...
		Adenitis, Suppurative ...	...	...	...	...	...	...
		Otitis ... ..	...	...	...	...	...	...
		Peritonsillar Abscess ...	...	...	...	...	...	...
		Irregular Pulse... ..	.	...	...	...	...	...
Enteric Fever	643	...	206	12	...	...	81	5
	54	GENERAL DISEASES.						
		<i>Specific Febrile.</i>						
		Tuberculosis, Acute... ..	1	1	...	...	1	1
		Whooping-cough ... ..	...	...	...	...	...	...
		Febricula	3	...	...	...	4	...
		Influenza	2	...	...	...	1	...
		Tuberculosis ... ..	...	...	...	...	2	1
		Pyæmia	3	3	...	...	1	1
		Measles ... ..	...	...	...	...	...	...
		Syphilis	1	1	...	...	...	...
		Septicæmia	1	...	...	...	...	...
		Malaria ... ..	...	...	...	...	...	...
		Dysentery ... ..	...	...	...	...	...	...
		Glanders ... ..	...	...	...	...	...	...
		<i>Not classified.</i>						
		Cellulitis ... ..	...	...	...	...	...	...
		Rheumatism	1	...	...	...	1	...
		Pyrexia ... ..	...	...	...	...	...	...
		Osteo-arthritis ... ..	...	...	...	...	...	...
		LOCAL DISEASES.						
		<i>Nervous System.</i>						
		Melancholia ... ..	...	...	...	...	...	...
		Cerebral Tumour	1	1	...	...	...	...
	54	Carried forward	13	6	...	...	10	3
Carried forward... ..	1,163	... ..	284	27	78	8	148	8

of Miscellaneous Diseases admitted during 1897.

WESTERN HOSPITAL.		SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
54	8	26	2	50	5	104	11	6	2	72	8	554	67
12	4	2	1	10	2	13	1	2	1	,	4	88	27
...	2	...	2	...
...	8	...
...	1	...	...	...	...	...	1	...
3	...	2	...	...	...	...	...	...	...	1	...	10	1
37	...	41	1	62	...	93	...	2	...	60*	...	511	1
...	3	...
...	1	...
...	1	...	...	...	...	...	2	...
...	1	...	...	...	...	...	1	...
...	1	...
...	1	...
...	1	...
...	1	...
...	1	...
...	1	...
...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	1	...	2	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
52	4	45	2	72	2	112	1	4	1	71	4	643	31
...	...	1	1	...	...	...	...	...	...	2	3†	5	6
...	1	...	...	...	...	...	1	...
...	1	...	...	...	3	...	11	...
...	...	2	...	...	...	9	1	...	...	...	...	14	1
...	2	1
...	4	4
...
1	2	1
...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	1	...	...	...	...	1	1
...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	3	...
...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...
...	1	1
1	...	5	1	...	...	17	2	...	...	5	3	51	15
95	8	74	4	112	5	220	13	8	2	141	11	1,160	86

* One case with Morbus Cordis as well. † One admitted previous year.

FEVER STATISTICS.—TABLE VIII. (continued)—Details

Diseases as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward ...	1,163	.. .. .	284	27	78	8	148	8
Brought forward— Enteric Fever }	54	.. .. .	13	6	...	...	10	3
Enteric Fever (contd.) ...	209	<i>Nervous System (continued)</i>						
		Meningitis, Tubercular ...	4	4	...	...	3	3
		Cerebral Hæmorrhage ...	...	...	...	...	1	...
		Alcoholic Neuritis ...	...	...	...	...	...	...
		Hysteria ...	...	...	...	...	1	...
		General Paralysis of Insane	...	...	...	...	1	...
		<i>Circulatory System.</i>						
		Endocarditis, Malignant ...	...	...	...	...	...	...
		Morbus Cordis ...	3	...	...	...	1	...
		Pericarditis ...	...	...	...	...	...	...
		<i>Respiratory System.</i>						
		Pleurodynia ...	...	...	...	...	...	...
		Phthisis ...	2	1	...	...	2	1
		Bronchitis ...	1	...	...	...	...	...
		Pleurisy ...	...	...	...	...	1	...
		Pneumonia, Lobar ...	14	1	...	...	11	...
		„ Lobular ...	...	...	...	...	1	...
		Empyema ...	...	...	...	...	...	...
		Tubercle, Pleural ...	...	...	...	...	...	...
		<i>Digestive System.</i>						
		Stricture of Rectum ...	...	..	...	...	...	...
		Cirrhosis of Liver ...	...	...	...	...	...	...
		Constipation ...	1	...	...	...	16	...
		Stomatitis ...	1	...	...	...	...	...
		Peritonitis ...	1	1	...	...	...	...
		Perityphlitis ...	4	...	...	...	...	...
		Gastritis ...	..	...	...	...	...	...
		Appendicitis ...	...	...	...	...	2	1
		Tonsillitis... ..	1	...	...	...	1	...
		Tuberculosis Intestinalis	...	...	...	...	...	...
		Tabes Mesenterica ...	...	...	...	...	...	...
		Gastro-Enteritis ...	...	...	..	...	1	...
		Diarrhœa	2	...	...	...	5	...
		Peritonitis, Septic ...	...	...	...	...	1	1
		„ Pelvic ...	...	...	...	...	...	...
		Dyspepsia ...	...	...	...	...	2	...
		Colitis, Ulcerative ...	...	...	...	...	...	...
		Tubercle, Peritoneal ...	...	...	...	...	...	...
		Peritonitis, Tubercular ...	...	...	...	...	1	1
		Follicular Tonsillitis ...	...	...	...	...	...	...
		Intestinal Obstruction ...	..	...	...	...	...	...
		Enteritis ...	...	...	...	...	...	...
		<i>Urinary System.</i>						
		Nephritis, Chronic ...	...	...	...	...	...	...
		Stricture of Urethra ...	...	...	...	...	...	...
		Surgical Kidney ...	...	...	...	...	...	...
	263	Carried forward ...	47	13	...	...	61	10
Carried forward ..	1,372	... .. .	318	34	78	8	199	15

f Miscellaneous Diseases admitted during 1897.

WESTERN HOSPITAL.		SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
95	8	74	4	112	5	220	13	8	2	141	11	1,160	86
1	...	5	1	...	...	17	2	...	...	5	3	51	15
...	...	1	1	...	...	3	3	...	...	...	...	11	11
...	1	...
1	1	...	...	...	...	2	1	...	...	...	...	3	2
...	1	...
...	1	...
...
...	3	3	...	...	1	1	4	4
...	3	1	...	...	...	...	7	1
...	1	1	...	...	...	...	1	1
...	1	...	...	...	...	...	1	...
2	1	...	...	...	...	4	3	...	...	1	...	11	6
...	...	1	...	...	...	1	...	...	...	1	...	4	...
2	1	...	...	...	...	...	4	...
4	...	2	...	...	...	21	2	...	...	9	2	61	5
...	...	3	1	...	...	2	...	...	...	2	2	8	3
...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
1	1	...
1	1	...	19	...
...	1	...
...	...	1	1	...	...	...	...	...	...	...	...	2	2
...	1	...	5	...
2	2	...	...	...	...	...	4	...
4	1	...	...	...	...	3	1	...	...	1	...	10	3
...	2	...	...	...	1	...	5	...
...	1	1	...	...	...	...	1	1
...	...	1	1	...	...	...	...	...	...	...	...	1	1
...	...	6	...	...	...	...	...	...	...	1	...	8	...
...	4	1	...	...	...	...	11	1
...	1	1
...	...	2	1	...	...	...	...	...	...	...	...	2	1
...	1	...	...	...	...	...	3	...
...	2	...	...	...	...	...	2	...
...	1	...	...	...	...	...	1	...
...	1	1
...	...	1	1	...	...	...	...	...	...	...	...	1	1
...	7	...	...	...	...	...	7	...
1	1	...	...	...	...	1	...	...	...	...	...	2	1
...	1	1	...	...	...	...	1	1
...	1	...	1	...
9	4	24	7	...	...	87	20	...	...	25	8	263	62
3	12	93	10	112	5	290	31	8	2	161	16	1,372	133

FEVER STATISTICS.—TABLE VIII. (continued)—Details of

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward ...	1,372	... ..	318	34	78	8	199	15
Brought forward— Enteric Fever }	263	... ..	47	13	...	...	61	10
Enteric Fever (contd.) ...	30	<i>Generative System.</i>						
		Prolapsus Uteri ... ..	...	...	...	...	1	...
		Endometritis ... ..	...	...	...	...	...	...
		Dysmenorrhœa ... ..	...	...	...	...	...	...
		Parametritis ... ..	...	...	...	...	...	...
		Carcinoma of Uterus ...	1	1	...	...	...	...
		„ Scroti ... ..	...	...	...	...	...	...
		Perimetritis ... ..	...	...	...	...	...	...
		<i>Skin Diseases.</i>						
		Erythema ... ..	...	...	...	...	1	...
		<i>Not Classified.</i>						
		Chronic Otitis, with Cere- bral Abscess ... ..	...	...	...	...	...	...
		No obvious disease	4	...	...	...	3	...
		Otitis ... ..	...	...	...	...	...	...
		Synovitis of Knee	1	...	...	...	...	...
		Chronic Otitis, with Mastoid Abscess and Septicæmia	...	...	...	...	...	...
		Multiple Abscess ... ..	...	...	...	...	1	...
		Malnutrition ... ..	...	...	...	...	1	...
		Paralysis of Diaphragm ...	...	...	...	...	...	...
	293		53	14	...	...	68	10
Typhus	2	Malignant Endocarditis ...	...	...	...	...	...	...
		Pneumonia... ..	...	...	...	...	...	...
	2		...	...	...	...	...	...
Uncertified	13	Came in with Mother ...	3	...	1	...	...	...
		Born in hospital	2	1	...	...	1	...
		Tonsillitis ... ..	...	...	...	...	...	...
	13		5	1	1	...	1	...
GRAND TOTALS ...	1,417	... ..	329	36	79	8	207	15

Miscellaneous Diseases admitted during 1897.

WESTERN HOSPITAL.		SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
113	12	93	10	112	5	290	31	8	2	161	16	1,372	133
19	4	24	7	...	...	87	20	...	...	25	8	263	62
...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	...
...	1	1
...	1	1	...	...	...	...	1	1
...	2	...	...	...	...	...	2	...
...	1	...
...	1	1	1	1
...	6	...	...	...	...	...	13	...
...	2	1	...	...	...	...	2	1
...	1	...
...	1	1	1	1
...	1	...
...	1	...
...	1	...	...	...	...	...	1	...
19	4	24	7	...	...	102	22	...	...	27	10	293	67
...	1	1	...	...	...	...	1	1
...	1	...	...	...	...	...	1	...
...	2	1	...	...	...	...	2	1
...	1	...	...	...	...	...	...	...	5	...
...	1	...	...	...	...	...	4	1
...	4	...	...	...	...	...	4	...
...	1	...	5	...	...	...	...	...	13	1
113	12	93	10	113	5	312	34	8	2	163	18	1,417	140

iii. REPORTS OF THE MEDICAL OFFICERS OF THE RIVER AMBULANCE SERVICE AND OF THE MEDICAL SUPERINTENDENT OF THE SMALLPOX HOSPITAL SHIPS FOR THE YEAR 1897.

No. 1.

RIVER AMBULANCE SERVICE.

SOUTH WHARF,
ROTHERHITHE,
January, 1898.

Statistics. During this past year, 1897, 121 cases have been sent to the wharf certified as suffering from smallpox. Of these, there were—

Sent to hospital ships direct	...	...	...	...	64
Sent after detention	...	...	...	...	5
Died of smallpox at wharf	...	...	...	...	1
Treated in shelters for smallpox	...	...	...	...	1
Total smallpox cases					<u>*71</u>

Of the remaining 50 cases, there were—

Sent home direct	...	...	...	...	26
Sent home after detention	...	...	...	...	22
Died in shelters	...	...	...	...	1
Remaining under treatment	...	...	...	...	1
Total non-smallpox patients					<u>50</u>

The following parishes contributed the cases of smallpox :—

Camberwell	...	...	...	...	...	26
St. Pancras	...	...	...	...	...	7
Poplar	...	...	...	...	...	7
Greenwich	...	...	...	...	...	7
Bloomsbury	...	...	...	...	...	3
Wandsworth and Clapham	...	...	...	...	...	3
St. Olaves	...	...	...	...	...	3
Westminster	...	...	...	...	...	4
Strand	...	...	...	...	...	4
Woolwich	...	...	...	...	...	1
City	...	...	...	...	...	1
Hackney	...	...	...	...	...	2
Islington	...	...	...	...	...	1
Marylebone	...	...	...	...	...	1
Shoreditch	...	...	...	...	...	1
						<u>*71</u>

* Includes two cases found after admission to the Hospital Ships not to be smallpox.

Forty-seven of these cases were contributed by the parishes of Camberwell, St. Pancras, Poplar, and Greenwich, and may, I think, all be traced to an imported case. A case of smallpox occurred on board a P. & O. steamer, and one of the foreign seamen visited a fellow-countryman residing in Camberwell, in Glengall Road, and at 128, Glengall Road, smallpox actually broke out. The patient, an unvaccinated child, was admitted to the Camberwell Infirmary, and, the case not being there recognised until the eruption was well developed, a number of cases occurred at this institution, and from there several other cases were to be traced to houses in this or other neighbourhoods. I think that there is little doubt that smallpox was introduced in the way I have stated, as from October 26th until the admission of the Lascar fireman on December 28th no case of smallpox had occurred in London.

The patient who died at the wharf from smallpox was E. J., a Lascar, aged 48, sent from Camberwell Infirmary suffering from hæmorrhagic smallpox. Patient was admitted February 7th, died on February 8th.

There has not been a case of smallpox admitted since July 25th, this case being also an imported one, smallpox having been contracted on an infected French steamer on the passage from East Africa.

Of the non-smallpox cases sent to the wharf, the corrected diagnosis is as follows:—

Non-Smallpox Cases.

DISEASE (corrected diagnosis).	Sent direct home.	Sent home after detention.	Total.	REMARKS.
Varicella	18	6	24	Remaining under treatment December 31st, 1897.
Syphilis... ..	1	1	2	
Eczema... ..	1	.	1	
Febricula ... ..	...	3	3
Measles	1	1	2	
Acne	1	...	1	
Lichen planus... ..	1	...	1	
Pneumonia	1	1	2	
Enteric Fever ... ..	...	1	1
Rheumatic Erythema... ..	...	1	1
Lichen scrofulosus	1	...	1	
Herpes	1	...	1	
Vaccinia ... ..	...	1	1
Ulcerated Leg ... ..	...	1	1
Nil ... ..	...	3	3
Urticaria	1	1	Died from senile decay.
Malarial Fever ... ..	...	1	1
Impetigo ... ..	...	1	1
Acne medicamentosa ... ..	...	1	1
Psoriasis ... ..	...	1	1
	26	24	50	

The patient who died at the wharf was W. C., a male, aged 82 years. This patient had been sent from an infected ward at the Central London Sick Asylum, and was suffering from vaccinia on admission, and, being very old and feeble, was unable to withstand the constitutional disturbance to which the vaccination gave rise, the patient having had a very bad arm.

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(Signed) T. B. BROOKE,
Medical Officer, River Service.

No. 2.

THE SMALLPOX HOSPITAL SHIPS.

(For Statistical Tables, see pp. 96 to 110.)

LONG REACH,
NEAR DARTFORD, KENT,
January 25th, 1898.

Statistics. Seventy patients were admitted into this hospital during the year 1897. One patient was under treatment on December 31st, 1896. On the corresponding date of last year the hospital was empty.

Of the 70 patients admitted, two were not suffering from smallpox. Both were cases of varicella.

Two patients were treated for smallpox at South Wharf, and were not admitted to the hospital. So that there was a total of 70 patients treated for smallpox in institutions of the Managers. Of these 70 patients 13 died—12 at the hospital and one at South Wharf—a very large number among so few patients. Three of the fatal cases were in an advanced stage of tuberculous disease, and were sent here from general hospitals; and, generally, of the patients admitted, an unduly large proportion had smallpox in a severe form. Thus, three patients died at the hospital and one at South Wharf of hæmorrhagic smallpox, and four more who died had symptoms approaching those peculiar to the hæmorrhagic type of the disease.

With one exception, all the patients were admitted during the first five months of the year, and the bulk of them in the first two months. In the month of December, 1896, no cases were admitted to the hospital until the end of the month, when a sailor was admitted from the Port of London. Early in January, 1897, two more sailors, besides another sporadic case, were admitted. At the end of the month a case was admitted from a boarding house in Bloomsbury, where an adult patient had been under treatment for “chickenpox.” Three more persons shortly afterwards developed the disease, having contracted it from the same source.

On January 28th, a little boy was admitted from the Havil Street Infirmary, Camberwell. It is not known how he caught smallpox. His parents lived in the

vicinity, and when he fell ill they took him to the infirmary. While under treatment there he developed the smallpox rash, the nature of which was not at first recognised. The boy fell ill on January 19th, and was removed from the infirmary on the 27th. During that time he conveyed the infection of smallpox to about 20 persons in and out of the infirmary. A small epidemic was thus started, which promised at one time to assume serious proportions. Happily on the prompt removal of the cases it rapidly subsided.

I have alluded to the fact that some sailors contracted smallpox at the end of 1896 and beginning of 1897, and were admitted to this hospital. This circumstance has doubtless some bearing on the fact that smallpox broke out in the Greenwich Hospital early in February. Five cases were removed during that month, but no cases afterwards occurred there. The Cleveland Street Sick Asylum was another hospital which became infected with smallpox at the beginning of February. Ten cases were traced to this source, but the origin of the outbreak was not ascertained.

After the end of February cases were admitted infrequently from various parts of London. The attacks were mostly isolated, or fell into groups of two or three. The last admission during the first five months of the year took place on May 17th. On June 14th, the patients then remaining were discharged, and the hospital was empty. No more patients were admitted until July 26th. On that date there was admitted a man who had recently arrived in London from Africa. He was discharged on August 14th. Thereafter until the end of the year the hospital was again empty.

Staff. I present the usual return of the number of persons employed on the staff of the hospital in the course of the year.

Staff employed at the Hospital.				Staff newly employed.			
Year.	Class.*	Number employed.	Contracted Smallpox.	Year.	Class.*	Number who entered Service.	Contracted Smallpox.
1897	I.	29	} Nil.	1897	I.	4	} Nil.
	II.	53			II.	9	
	III.	72			III.	15	
	IV.	42			IV.	20	
Total	... ..	196	—	Total	... ..	48	—

* * * * *

(Signed) T. F. RICKETTS,
Medical Superintendent.

*CLASS I.—Includes those brought into intimate contact with patients, viz., nurses and members of the medical staff.
CLASS II.—Includes those somewhat less directly exposed to infection, such as wardmaids and laundrymaids.
CLASS III.—Includes those whose duties did not, as a rule, necessitate their entering the wards, or their being directly exposed to infection in other ways.
CLASS IV.—Includes contractors' men and others temporarily employed at the hospital

APPENDIX I.—INFECTIOUS DISEASES. SMALLPOX STATISTICS, 1897.

SMALLPOX STATISTICS.—TABLE I.—Return showing the Numbers of Smallpox Patients Admitted from each Parish or Union during each Month of the Year 1897; the Total Admissions, Discharges, and Deaths during the Year, and the condition of the Patients as to Vaccination.

PARISH OR UNION.		REMAINING IN HOSPITAL ON 1ST JANUARY.			JANUARY.	FEBRUARY.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPTEMBER.	OCTOBER.	NOVEMBER.	DECEMBER.	TOTAL ADMISSIONS.	DEATHS.	DISCHARGES.	REMAINING IN HOSPITAL ON 31ST DECEMBER.	
		VACCINATION CICATRIX OR CICATRICES.																			
		Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.	Present.	No Evidence.	Absent.
W. DISTRICT.	Kensington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Fulham ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Paddington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chelsea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. George's ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
N. DISTRICT.	Westminster ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. Marylebone ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. Pancras ...	...	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hampstead ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Islington... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
CENT. DIST.	Hackney ...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	St. Giles & St. George, } Bloomsbury ... }	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Strand ...	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Holborn ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	London, City of ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
E. DISTRICT.	Shoreditch ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bethnal Green ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whitechapel ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. George-in-the-East ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stepney ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
S. DISTRICT.	Mile End Old Town ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Poplar ...	...	...	...	...	1	...	2	...	4	...	...	...	...	...	...	...	...	...	...	...
	St. Saviour's ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	St. Olave's ...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lambeth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Wandsworth & Clapham ...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
	Camberwell ...	...	...	...	1	15	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...
	Greenwich ...	...	...	2	...	2	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	Woolwich ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	Lewisham ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Port of London ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	West Ham ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Beyond Metro. Area ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Totals ...		...	...	1	7	...	1	30	4	11	4	...	1	4	...	...	7	...	...	...	...
		1	8	45	5	4	7	...	1	...	...	...	...	...	...	...	70	13	58	...	

N.B.—Admissions, &c., from “other diseases” during the year are not included in this Return.

NOTE 1.—The columns headed “no evidence” contain the particulars of cases stated to have been Vaccinated, but bearing no visible evidence of the operation and also of those in which no statement was made, but the nature of the eruption or other cause prevented any observation of the marks, if any existed.

APPENDIX I.—INFECTIOUS DISEASES. SMALLPOX STATISTICS, 1897.

SMALLPOX STATISTICS—TABLE IIa.—Showing the condition as regards Vaccination of MALE Patients admitted during 1897.

CASES WITH VACCINATION CICATRIX OR CICATRICES PRESENT.										Cases in which there was "No evidence" as to Cicatrices. (See Note*.)		Cases in which Vaccination Cicatrix was "absent."																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
AGES.	AREA OF CICATRIX OR CICATRICES.																				Total Vaccinated Cases Admitted.	Deaths amongst Vaccinated Cases.				Total Admissions.	Total Deaths.	Total Admissions.	Total Deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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N.B.—(1) The small figures indicate the number of Deaths in each sub-division of the Classes.

This Table includes cases which were vaccinated or re-vaccinated after having been infected with Smallpox.

* In this column are included cases stated to have been vaccinated, but bearing no visible evidence of the operation, and also cases in which no statement was made, but the nature of the eruption, or other cause, prevented any observation of the marks, if any existed

APPENDIX I.—INFECTIOUS DISEASES. SMALLPOX STATISTICS, 1897.

SMALLPOX STATISTICS—TABLE IIb. (continued)—Showing the condition as regards Vaccination of the FEMALE Patients admitted during 1897.

AGES.		CASES WITH VACCINATION CICATRIX OR CICATRICES PRESENT.																																								Deaths amongst Vaccinated Cases.	Cases in which there was "No evidence" as to Cicatrices. (See Note*)	Cases in which Vaccination Cicatrix was "absent."
		AREA OF CICATRIX OR CICATRICES.																																										
		Class A ¹ = half and upwards of one-half square inch total area.										Class A ² = one-third, but less than one-half square inch total area.										Class A ³ = less than one-third square inch total area.										Class A ⁴ = Areas not recorded.												
		Number of Scars.										Number of Scars.										Number of Scars.										Number of Scars.												
		Foveation of Scars.										Foveation of Scars.										Foveation of Scars.										Foveation of Scars.												
		Four or more.										Four or more.										Four or more.										Four or more.												
		Three.										Three.										Three.										Three.												
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Less than half foveated										Less than half foveated										Less than half foveated										Less than half foveated														
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Plain scars										Plain scars										Plain scars										Plain scars														
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Half and more than half foveated										Half and more than half foveated										Half and more than half foveated										Half and more than half foveated														
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Plain scars										Plain scars										Plain scars										Plain scars														
Not recorded										Not recorded										Not recorded										Not recorded														
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Less than half foveated										Less than half foveated										Less than half foveated										Less than half foveated														
Plain scars										Plain scars										Plain scars										Plain scars														
Not recorded										Not recorded										Not recorded										Not recorded														
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Less than half foveated										Less than half foveated										Less than half foveated										Less than half foveated														
Plain scars										Plain scars										Plain scars										Plain scars														
Not recorded										Not recorded										Not recorded										Not recorded														
Half and more than half foveated										Half and more than half foveated										Half and more than half foveated										Half and more than half foveated														
Less than half foveated										Less than half foveated										Less than half foveated										Less than half foveated														
Plain scars										Plain scars										Plain scars										Plain scars														
Not recorded										Not recorded										Not recorded										Not recorded														
Half and more than half foveated										Half and more than half foveated										Half and more than half foveated										Half and more than half foveated														
Less than half foveated										Less than half foveated										Less than half foveated										Less than half foveated														
Plain scars										Plain scars										Plain scars										Plain scars														
Not recorded										Not recorded										Not recorded										Not recorded														
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N.B.—(1) The small figures indicate the number of Deaths in each sub-division of the Classes.

This table includes cases which were vaccinated or re-vaccinated after having been infected with Smallpox.

* In this column are included cases stated to have been vaccinated, but bearing no visible evidence of the operation, and also cases in which no statement was made, but the nature of the eruption, or other cause, prevented any observation of the marks, if any existed.

APPENDIX II.—IMBECILITY.

REPORTS OF THE MEDICAL SUPERINTENDENTS OF
THE SEVERAL ASYLUMS AND OF THE SCHOOLS
FOR THE YEAR 1897.

(For Statistics, see pp. 116 to 139.)

[N.B.—*Those portions of the reports relating to alterations to buildings and other matters of no general interest have been omitted.*]

No. 1.

LEAVESDEN ASYLUM.

NEAR WATFORD, HERTS,
January, 1898.

Statistics.

	Males.	Females.	Total.
On January 1st, 1897, the asylum contained	894	1,096	1,990
Admitted during the year	145	103	248
Total under treatment during the year	1,039	1,199	2,238
Discharged during the year	39	16	55
Died during the year	100	84	184
Remaining in the asylum on December 31st, 1897	900	1,099	1,999

The admissions, numerically, were well up to the average, and, as for many years past, reached us when well beyond the help of the psychologist, but in time to keep the medical and nursing staff well in action. The result of treatment unfortunately does not, except in rare cases, reward one for the care bestowed. Still, life is prolonged, witness the ages of many of our patients and number of years they have been resident. Of those admitted during the year—

31 were between 60 and 70
21 „ „ 70 „ 80
4 „ „ 80 „ 90

The re-admissions were three in number—two males and one female.
E. C., male, was discharged to a county asylum in April, 1896, returned February 10th last, and died after a severe epileptic fit on June 2nd.

E. N., male, was discharged as recovered, January 28th, 1891, returned November 16th last. The local magistrate refused to certify him as insane; he was therefore at once again discharged.

L. M., female, was removed to a county asylum as far back as March, 1877. She was sent back to us in November last. She has now lapsed into dementia.

Those admitted from county asylums are as follow :—

		Males.	Females.	
From Colney Hatch	...	18	23	
„ Claybury	... ..	21	7	
„ Hanwell	... ..	3	10	
„ City of London, Stone		28	16	
		70	56	= 126

The probable causes, so far as could be gleaned from relatives and others, of insanity of those admitted during 1897 will be found in Table VI., p. 122.

We have been enabled to send away as recovered 13 males, whose sojourn here, with but one exception, was not of long duration. The cause in the majority of cases was alcoholic indulgence; abstinence and work in the open air soon cured them. I think great care should be exercised in certifying this class of patient as insane, because once sent to an asylum they become tarred with the taint, and when seeking work after discharge, are apt to find people chary of employing them, should the fact ooze out. They then become despondent, and are apt to fly to their old haunts and habits for consolation.

As improved, eight males and six females were discharged and handed over to the care of their friends, with the consent of the various boards of guardians to whose parish they were chargeable.

Those not improved, 16 males and 10 females, were disposed of as follows :—

		Males.	Females.	
To Colney Hatch	... ..	11	6	
„ Hanwell...	... ..	2	1	
„ Claybury	... ..	1	—	
, City of London, Stone...		—	1	
		14	8	= 22

The other two males and two females were removed to places of settlement.

The death rate of 9·2 per cent. is slightly lower than in 1896, when I stated it was the lowest since 1888. Senility and pulmonary tuberculosis are the chief causes. (See Table VII., p. 124.) I would also call attention to the few cases which succumbed to preventable chest affection.

One inquest was held, on August 10th, concerning the death of J. E. M., *æt.* 31, admitted from Camberwell. The patient had fallen when at play with another, and sustained a simple fracture of the arm. A day or so afterwards he became acutely maniacal, and died from syncope. The jury returned the following verdict :—

“That on August 8th, at the parish of Watford, in the county of
“Hertford, the said J. E. M. died from syncope exhaustion, an accidental
“fall causing fracture of humerus, contributing to the acute attack of mania.”

Five patients have been discharged as recovered, five to the care of their relatives as improved, and one as unimproved. Twelve have been transferred to a county asylum (Cane Hill) as having manifested evidence of being either dangerous to themselves or others, and therefore unfit for further detention.

The total number under care during the year was 2,140. The highest number resident was 2,009, the lowest 1,979, and the average daily number resident during the year was 1,994.

The number of cases attributed in Table VI., p. 123, to alcoholic intemperance being the cause of insanity is recorded as 17; but this does not give anything like a reliable number of the admissions really due to this sad factor, as it is frequently most difficult to obtain trustworthy information from the relatives on this point, owing to their somewhat natural desire to conceal the possession of this vice on the part of those dear to them. I have, however, no hesitation in expressing my opinion that a considerably larger proportion of the admissions was due to this baneful habit.

It is a matter of congratulation that the asylum has been entirely free from epidemic or infectious disease during the year.

Inquest. An inquest was held in September on the body of a male patient, who was subject to epilepsy, and accidentally fell in the day room of his ward during an epileptic fit, sustaining a fracture of the skull, which was verified by a post-mortem examination. The charge attendant of the ward was within a few yards of the deceased at the time of the occurrence. The following verdict was returned—"That the deceased died from fracture of the skull due to a fall whilst in an epileptic fit, and that no blame attached to the officials of this asylum."

* * * * *

Staff. The average daily number of staff employed during the year was as follows :--

A.	Medical staff	...	{ Medical Superintendent.		
			{ Two assistant medical officers.		
B.	Nursing staff	...	...	...	113
C.	Other staff	...	...	...	97

* * * * *

(Signed) G. STANLEY ELLIOT,
Medical Superintendent.

No. 3.

DARENTH ADULT ASYLUM.

NEAR DARTFORD, KENT,
February 21st, 1898.

Statistics. I have the honour, in my capacity as temporary Medical Superintendent, to submit to you the annual report upon the condition of the asylum for the year 1897, together with the usual statistical tables.
The statistical results of the year may be thus classified :—

	Males.	Females.	Total.
In the asylum on January 1st, 1897	447	583	1,030
Admitted during the year... ..	24	33	57
Discharged during the year	4	3	7
Died during the year... ..	18	18	36
Remaining December 31st, 1897	449	595	1,044

The admissions during the year have numbered 57, viz., 24 males and 33 females. All these cases have been transferred from the schools, as in the preceding year.

There were 36 deaths during the year—18 males and the same number of females. I should mention that during the previous year the total number of female deaths was more than double the male, but in 1897 the mortality of the sexes was equal.

The percentage of deaths on the average number resident was 3·5. It is worthy of note that this is the lowest death-rate since the opening of the asylum in 1880.

Four males and two females were discharged, as dangerous to others, to their respective parishes for transfer to a county asylum; and one female, as improved, to the care of her relatives.

The average daily number resident during the year was 1,041, and the highest number on any one day was 1,050 and the lowest 1,028.

	*	*	*	*	*
Staff.					
Medical staff ... ..	...	...	...	...	2
Female nursing staff ... ..	...	...	...	...	44
Male nursing staff ... ..	...	...	...	...	37
Other staff ... ..	...	...	...	...	102

In conclusion, I should state that this report is necessarily brief, as I have only acted in my present temporary capacity for the past fortnight, and am not therefore in a position to enter into further details regarding the general administrative and domestic history of the asylum during the year under review.

* * * * *

(Signed) G. STANLEY ELLIOT,
Acting Medical Superintendent.

ASYLUM STATISTICS.—TABLE I.—*Showing*

	LEAVESDEN ASYLUM.					
	Males.	Females.	Total.	Males.	Females.	Total.
In the Asylums, January 1st, 1897...	...	...	...	894	1,096	1,990
Admitted for the first time during the year, direct from the several Parishes and Unions	143	102	245	...	...	...
Re-admitted during the year...	2	1	3	...	...	...
Admitted from other Asylums of the Board	...	...	...	145	103	248
Total under care during the year	...	...	...	1,039	1,199	2,238
Discharged—						
Not insane	2	...	2	...	...	...
Recovered	13	...	13	...	...	...
Improved	8	6	14	...	...	...
Not improved	16	10	26	...	...	...
To other Asylums of Board...	...	...	...	...	...	...
Died	100	84	184	...	...	...
Total discharged (for various reasons) and died during the year	...	...	...	139	100	239
Remaining in the Asylums, December 31st, 1897...	...	...	...	900	1,099	1,999
Average numbers resident during the year	...	...	...	895	1,095	1,990
Highest number resident on any one day	...	...	...	900	1,100	2,000
Lowest number resident on any one day	...	...	...	882	1,088	1,970

TABLE II.—*Showing the Admissions, Re-admissions, and Discharges from*
[N.B.—The following are the dates of the opening of the several Asylums:—

	LEAVESDEN ASYLUM.					
	Males.	Females.	Total.	Males.	Females.	Total.
Admitted during the period of 27 ^{8.3} / ₃₆₅ years, direct from the several Parishes and Unions	3,961	3,843	7,804	...	...	...
Re-admissions	52	20	72	...	...	...
Admitted from other Asylums of Board	182	232	414	...	...	...
Total of cases admitted	...	...	...	4,195	4,095	8,290
Discharged—						
Not certified	...	...	...	...	...	...
Not insane	8	5	13	...	...	...
Recovered	227	118	345	...	...	...
Improved and escaped	216	158	374	...	...	...
Not improved	288	272	560	...	...	...
To other Asylums of Board	46	34	80	...	...	...
Died	2,510	2,409	4,919	...	...	...
Total discharged and died during the 27 ^{8.3} / ₃₆₅ years	...	...	...	3,295	2,996	6,291
Remaining December 31st, 1897	...	...	...	900	1,099	1,999
Average numbers resident during the 27 ^{8.3} / ₃₆₅ years	...	...	...	835	1,048	1,883

N.B.—From April 16th, 1873, to November, 1876, the North-Western Hospital (Hampstead) was used as an Asylum for the other Asylums of the Board. 222 patients (91 male and 131 female) died and the

the Admissions, Re-admissions, Discharges, and Deaths during the Year 1897.

CATERHAM ASYLUM.						DARENTH ASYLUM.						SUMMARY.					
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
...	...	...	925	1,073	1,998	...	...	...	447	583	1,030	...	...	...	2,266	2,752	5,018
84	58	142	...	...	...	...	...	...	...	...	...	227	160	387	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...
...	...	...	...	...	...	24	33	57	...	...	...	24	33	57	...	...	...
...	...	...	84	58	142	...	...	...	24	33	57	...	...	...	253	194	447
...	...	...	1,009	1,131	2,140	...	...	...	471	616	1,087	...	...	...	2,519	2,946	5,465
...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
1	4	5	...	...	...	...	...	...	...	...	...	14	4	18	...	...	...
5	...	5	...	...	...	...	1	1	...	...	...	13	7	20	...	...	...
8	5	13	...	...	...	4	2	6	...	...	...	28	17	45	...	...	...
...
66	72	138	...	...	...	18	18	36	...	...	...	184	174	358	...	...	...
...	...	...	80	81	161	...	...	...	22	21	43	...	...	...	241	202	443
...	...	...	929	1,050	1,979	...	...	...	449	595	1,044	...	...	...	2,278	2,744	5,022
...	...	...	931	1,063	1,994	...	...	...	448	593	1,041	...	...	...	2,274	2,751	5,025
...	...	...	934	1,075	2,009	...	...	...	450	600	1,050	...	...	...	2,284	2,775	5,059
...	...	...	929	1,050	1,979	...	...	...	445	583	1,028	...	...	...	2,256	2,721	4,977

the Opening of the First Asylum to the present date, December 31st, 1897.

LEAVESDEN, October 9th, 1870; CATERHAM, September 29th, 1870; and DARENTH, May 4th, 1880.]

CATERHAM ASYLUM.						DARENTH ASYLUM.						SUMMARY.					
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
4,054	3,634	7,688	...	...	...	775	1,222	1,997	...	...	...	8,790	8,699	17,489	...	...	...
32	30	62	...	...	...	2	9	11	...	...	...	86	59	145	...	...	...
129	204	333	...	...	...	483	449	932	...	...	...	794	885	1,679	...	...	...
...	...	...	4,215	3,868	8,083	...	...	...	1,260	1,680	2,940	...	...	...	9,670	9,643	19,313
...	...	...	...	...	...	8	14	22	...	...	...	8	14	22	...	...	...
5	2	7	...	...	...	...	...	...	...	...	...	13	7	20	...	...	...
242	180	422	...	...	...	30	21	51	...	...	...	499	319	818	...	...	...
273	162	435	...	...	...	118	123	241	...	...	...	607	443	1,050	...	...	...
204	175	379	...	...	...	92	114	206	...	...	...	584	561	1,145	...	...	...
87	48	135	...	...	...	73	82	155	...	...	...	206	164	370	...	...	...
2,475	2,251	4,726	...	...	...	490	731	1,221	...	...	...	5,475	5,391	10866	...	...	...
...	...	...	3,286	2,818	6,104	...	...	...	811	1,085	1,896	...	...	...	7,392	6,899	14,291
...	...	...	929	1,050	1,979	...	...	...	449	595	1,044	...	...	...	2,278	2,744	5,022
...	...	...	846	1,061	1,907	...	...	...	338	482	820	...	...	...	2,019	2,591	4,610

Imbeciles, and during that period 1,201 patients were admitted direct from the several Parishes and Unions, as well as some from remainder were discharged or transferred to the Asylums at Leavesden and Caterham.

ASYLUM STATISTICS.—TABLE III.—*Showing the Admissions, Discharges, and Admissions for the year 1888,*

YEAR.			ADMITTED.					DISCHARGED.												
			FROM PARISHES AND UNIONS.		FROM OTHER ASYLUMS OF BOARD.		Total Admissions.	RECOVERED.			IMPROVED.			NOT IMPROVED.			To OTHER ASYLUMS OF BOARD.			
			Male.	Female.	Male.	Female.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
LEAVESDEN ASYLUM.																				
1888	...	...	73	83	...	...	156	5	4	9	4	1	5	5	5	10	...	...	...
1889	...	...	142	122	...	...	264	3	4	7	10	5	15	5	11	16	...	...	...
1890	...	...	163	157	...	...	320	12	9	21	7	7	14	5	6	11	...	...	...
1891	...	...	179	150	...	...	329	13	8	21	14	12	26	7	†9	16	...	...	...
1892	...	...	185	152	...	...	337	17	7	24	7	4	11	13	14	27	...	...	...
1893	...	...	160	95	...	...	255	13	5	18	10	...	10	10	7	17	...	...	...
1894	...	...	154	112	...	...	266	12	4	16	9	4	13	19	7	26	...	...	...
1895	...	...	126	127	...	...	253	6	1	7	4	4	8	10	7	17	1	1	2
1896	...	...	139	102	...	...	241	8	...	8	5	3	8	21	9	30	1	...	1
1897	...	...	145	103	...	...	248	13	...	13	8	6	14	‡18	10	28	...	...	...
CATERHAM ASYLUM.																				
1888	...	...	83	81	...	...	164	6	6	12	4	1	5	8	7	15	...	...	...
1889	...	...	92	79	...	...	171	13	4	17	1	2	3	6	7	13	...	...	...
1890	...	...	121	123	...	...	244	5	2	7	4	3	7	5	6	11	...	...	...
1891	...	...	104	108	...	...	212	3	4	7	2	5	7	5	7	12	...	...	...
1892	...	...	103	115	...	...	218	5	2	7	5	3	8	6	8	14	...	...	...
1893	...	...	86	76	...	...	162	2	2	4	4	5	9	11	10	21	...	...	...
1894	...	...	102	113	...	...	215	6	4	10	4	3	7	6	5	11	..	...	...
1895	...	...	85	76	...	...	161	7	1	8	5	1	6	13	3	16	...	...	...
1896	...	...	84	59	1	...	144	6	3	9	3	5	8	11	7	18	...	...	...
1897	...	...	84	58	...	...	142	1	4	5	5	...	5	8	5	13	...	...	...
DARENTH ASYLUM.																				
1888	...	...	49	70	124	46	289	...	...	...	18	14	32	2	6	8	21	40	61
1889	...	...	128	113	26	9	276	...	...	...	26	10	36	8	6	14	...	...	...
1890	...	...	74	86	...	...	160	...	...	...	3	23	26	11	8	19	52	42	94
1891	...	...	59	92	...	...	151	7	12	†19	4	8	12	8	4	12	...	...	...
1892	...	...	24	20	11	31	86	...	...	...	3	2	5	10	4	14	...	...	...
1893	...	...	...	23	45	44	112	...	2	†2	...	2	2	9	3	12	...	...	...
1894	...	...	...	66	38	13	117	1	...	†1	2	...	2	4	1	5	...	...	...
1895	...	...	...	20	25	45	90	...	...	...	...	4	4	2	18	20	...	...	...
1896	...	...	...	...	27	29	56	...	...	...	6	5	11	5	4	9	...	...	...
1897	...	...	...	...	24	33	57	...	...	...	...	1	1	4	2	6	...	...	...
SUMMARY.																				
1888	...	...	205	234	124	46	609	11	10	21	26	16	42	15	18	33	21	40	61
1889	...	...	362	314	26	9	711	16	8	24	37	17	54	19	24	43	...	...	...
1890	...	...	358	366	...	...	724	17	11	28	14	33	47	21	20	41	52	42	94
1891	...	...	342	350	...	...	692	23	24	47	20	25	45	20	20	40	...	...	...
1892	...	...	312	287	11	31	641	22	9	31	15	9	24	29	26	55	...	...	...
1893	...	...	246	194	45	44	529	15	9	24	14	7	21	29	20	49	...	...	...
1894	...	...	256	291	38	13	598	19	8	27	15	7	22	29	13	42	...	...	...
1895	...	...	211	223	25	45	504	13	2	15	9	9	18	25	28	53	1	1	2
1896	...	...	223	161	28	29	441	14	3	17	14	13	27	37	20	57	1	...	1
1897	...	...	229	161	24	33	447	14	4	18	13	7	20	30‡	17	47	...	...	...

† 2 Not insane.

† Not certified.

Deaths, with the mean Annual Mortality and proportion of Recoveries per cent. of the and for each subsequent year.

DIED.			Remaining December 31st.			Average Numbers Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Numbers Resident.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
76	76	152	883	1,089	1,972	890	1,090	1,980	6·8	4·8	5·7	8·5	7·0	7·7
124	109	233	883	1,082	1,965	887	1,085	1,972	2·1	3·2	2·6	13·9	10·0	11·8
181	124	305	841	1,093	1,934	853	1,081	1,934	7·3	5·7	6·5	21·2	11·4	15·7
114	132	246	872	1,082	1,954	851	1,089	1,940	7·2	5·3	6·3	13·4	12·1	12·7
131	111	242	889	1,098	1,987	857	1,068	1,925	9·2	4·6	7·1	15·3	10·4	12·6
117	85	202	899	1,096	1,995	894	1,097	1,991	8·1	5·3	7·0	13·1	7·7	10·1
118	97	215	895	1,096	1,991	894	1,095	1,989	7·7	3·5	6·0	13·0	8·9	10·1
103	116	219	897	1,094	1,991	895	1,096	1,991	4·7	0·8	2·8	11·5	10·5	11·0
107	88	195	894	1,096	1,990	893	1,097	1,990	5·8	0·0	5·8	12·0	8·0	9·8
100	84	184	900	1,099	1,999	895	1,095	1,990	8·9	0·0	8·9	11·1	7·6	9·2
78	85	163	930	1,052	1,982	936	1,068	2,004	7·2	7·4	7·3	8·3	7·9	8·1
83	72	155	919	1,046	1,965	930	1,048	1,978	14·1	5·0	9·9	8·9	6·8	7·8
107	100	207	919	1,058	1,977	918	1,062	1,980	4·1	0·8	2·4	11·6	9·4	10·4
76	86	162	937	1,064	2,001	922	1,060	1,982	2·8	3·7	3·3	8·2	8·1	8·1
83	95	178	941	1,071	2,012	919	1,045	1,964	3·8	1·7	2·7	9·0	9·0	9·0
72	66	138	938	1,064	2,002	940	1,070	2,010	2·3	2·6	2·4	7·6	6·1	6·8
94	91	185	930	1,074	2,004	931	1,071	2,002	5·8	3·5	4·6	10·0	8·5	9·2
57	73	130	933	1,072	2,005	932	1,070	2,002	8·2	1·3	4·9	6·1	6·8	6·4
73	43	116	925	1,073	1,998	929	1,074	2,003	7·1	5·0	6·2	7·8	4·0	5·7
66	72	138	929	1,050	1,979	931	1,063	1,994	1·2	6·9	3·5	7·0	6·8	6·9
31	40	71	418	547	965	330	530	860	...	...	...	9·3	7·5	8·2
54	53	107	484	600	1,084	467	588	1,055	...	...	...	11·5	9·0	10·1
51	62	113	441	551	992	449	563	1,012	...	...	...	11·3	11·0	11·1
35	39	74	446	580	1,026	443	553	996	...	...	...	7·9	7·0	7·4
32	43	75	436	582	1,018	446	580	1,026	...	...	...	7·1	7·4	7·3
28	67	95	444	575	1,019	445	574	1,019	...	...	...	6·3	11·7	9·4
28	54	82	447	599	1,046	446	578	1,024	...	...	...	6·3	9·3	8·0
23	44	67	447	598	1,045	448	590	1,038	...	...	...	5·1	7·4	6·4
16	35	51	447	583	1,030	448	592	1,040	...	...	...	3·6	5·9	4·9
18	18	36	449	595	1,044	448	593	1,041	...	...	...	4·0	3·0	3·5
185	201	386	2,231	2,688	4,919	2,156	2,688	4,844	3·3	3·5	3·4	8·5	7·4	7·9
261	234	495	2,286	2,728	5,014	2,284	2,721	5,005	4·1	2·5	3·5	11·4	8·5	9·8
339	286	625	2,201	2,702	4,903	2,220	2,706	4,926	4·7	3·0	3·8	15·2	10·5	12·7
225	257	482	2,255	2,726	4,981	2,216	2,702	4,918	4·4	3·4	3·9	10·1	9·5	9·8
246	249	495	2,266	2,751	5,017	2,222	2,693	4,915	6·8	2·8	4·8	11·0	9·2	10·0
217	218	435	2,281	2,735	5,016	2,279	2,741	5,020	5·2	3·8	4·5	9·5	7·9	8·7
240	242	482	2,272	2,769	5,041	2,271	2,744	5,015	6·5	2·6	4·5	10·6	8·8	9·6
183	233	416	2,277	2,764	5,041	2,275	2,756	5,031	5·5	0·74	3·0	8·0	8·4	8·3
196	166	362	2,266	2,752	5,018	2,270	2,763	5,033	5·5	1·5	3·8	8·6	6·0	7·1
184	174	358	2,278	2,744	5,022	2,274	2,751	5,025	6·1	2·5	4·0	8·0	6·3	7·1

ASYLUM STATISTICS.—TABLE IV.—*Classifying, under the usual denominations of Mental Disease, the Mental Condition of the Patients admitted during the year 1897.*

MENTAL DISEASES.	LEAVESDEN ASYLUM.			CATERHAM ASYLUM.			DARENTH ASYLUM.			SUMMARY.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Mania ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Mania, Chronic	6	2	8	5	4	9	...	...	...	11	6	17
Mania and Epilepsy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Melancholia	1	3	4	2	4	6	...	...	..	3	7	10
General Paresis	5	1	6	2	1	3	...	...	..	7	2	9
Dementia	60	47	107	27	18	45	...	...	...	87	65	152
Dementia and Paralysis	1	1	2	1	...	1	...	...	...	2	1	3
Dementia and Epilepsy	8	9	17	3	3	6	...	...	...	11	12	23
Senile Dementia... ..	10	8	18	9	12	21	7	8	15	26	28	54
Idiocy	5	5	10	3	2	5	12	21	33	20	28	48
Idiocy and Epilepsy	1	..	1	...	...	...	...	...	...	1	...	1
Imbecility	27	13	40	20	13	33	4	4	8	51	30	81
Imbecility and Epilepsy	10	8	18	12	1	13	...	...	...	22	9	31
Of Weak Mind	1	3	4	...	...	...	1	...	1	2	3	5
Mental Stupor ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholic Derangement	2	2	4	...	...	...	...	...	...	2	2	4
Delusional Insanity	1	1	2	...	...	...	...	...	...	1	1	2
Epilepsy	5	...	5	...	...	...	...	...	...	5	...	5
Not Insane	2	...	2	...	...	...	...	...	...	2	...	2
Totals	145	103	248	84	58	142	24	33	57	253	194	447

LUNACY STATISTICS.—TABLE V.—*Classifying, under the usual denominations of Mental Disease, the Mental Condition of the Patients resident in the Asylum on December 31st, 1897.*

MENTAL DISEASES.	LEAVESDEN ASYLUM.			CATERHAM ASYLUM.			DARENTH ASYLUM.			SUMMARY.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Mania	20	...	20	...	7	7	...	...	...	20	7	27
Mania, Chronic	80	71	151	6	72	78	10	36	46	96	179	275
Mania and Epilepsy ...	3	7	10	3	15	18	1	2	3	7	24	31
Melancholia... ..	7	54	61	50	47	97	...	2	2	57	103	160
General Paresis	5	1	6	6	1	7	...	1	1	11	3	14
Dementia	199	239	438	344	339	683	34	77	111	577	655	1,232
Dementia and Paralysis	13	56	69	30	12	42	7	15	22	50	83	133
Dementia and Epilepsy	66	135	201	152	216	368	32	37	69	250	388	638
Senile Dementia ...	67	80	147	...	12	12	4	35	39	71	127	198
Idiocy	38	74	112	23	25	48	46	60	106	107	159	266
Idiocy and Epilepsy ...	15	2	17	...	...	...	9	11	20	24	13	37
Imbecility	263	164	427	288	272	560	197	205	402	748	641	1,389
Imbecility and Epilepsy	80	148	228	27	32	59	86	85	171	193	265	458
Of Weak Mind	27	38	65	...	...	...	23	29	52	50	67	117
Mental Stupor	6	18	24	...	...	...	...	...	...	6	18	24
Alcoholic Derangement	2	4	6	...	...	..	...	...	...	2	4	6
Delusional Insanity ...	...	8	8	...	...	...	...	...	...	...	8	8
Epilepsy	9	...	9	...	...	...	...	...	...	9	...	9
Totals	900	1,099	1,999	929	1,050	1,979	449	595	1,044	2,278	2,744	5,022

ASYLUM STATISTICS.—TABLE VI.—*Showing the probable*

PROBABLE CAUSE.	LEAVESDEN ASYLUM.								
	As predisposing cause.			As exciting cause.			TOTAL.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
MORAL.									
Domestic troubles (including loss of relations and friends) ..	...	4	4	...	2	2	...	6	6
Adverse circumstances (including business anxieties and pecuniary difficulties) ... ..	...	3	3	2	3	5	2	6	8
Mental anxiety, worry (not included in above), and overwork	...	2	2	...	1	1	...	3	3
Religious excitement ... ..	...	...	...	1	...	1	1	...	1
Fright and nervous shock ... ..	...	...	...	2	...	2	2	...	2
PHYSICAL.									
Intemperance in drink ... ..	...	3	3	9	5	14	9	8	17
Do. sexual ... ..	...	...	...	...	2	2	...	2	2
Alcoholic intemperance of mother or both parents ... ..	...	...	...	...	...	...	...	...	...
Self-abuse (sexual) ... ..	...	...	...	4	...	4	4	...	4
Sunstroke ... ..	...	1	1	...	...	...	...	1	1
Accident or injury	4	2	6	...	2	2	4	4	8
Fright to mother when pregnant ... ..	...	...	...	...	...	...	...	...	...
Parturition and the puerperal state ... ..	...	...	...	...	...	...	...	...	...
Teething	1	...	1	...	...	...	1	...	1
Change of life ... ..	...	...	...	...	1	1	...	1	1
Fevers	1	...	1	...	...	...	1	...	1
Privation and starvation ... ..	...	2	2	...	3	3	...	5	5
Old age	12	5	17	...	7	7	12	12	24
Lead poisoning ... ..	...	...	...	...	...	...	...	...	...
Venereal disease	1	...	1	...	...	...	1	...	1
Other bodily diseases ... ..	...	6	6	...	10	10	...	16	16
Previous attacks	2	22	24	...	14	14	2	36	38
Hereditary influence ascertained	8	7	15	...	1	1	8	8	16
Congenital effect ascertained ... ..	...	2	2	...	3	3	...	5	5
Epilepsy	9	13	22	...	10	10	9	23	32
Unknown	74	25	99	...	35	35	74	60	134
Constitutional	15	6	21	...	3	3	15	9	24

The total of causations does not correspond with the number of admissions in Table I., as some

causes of Insanity in the Patients admitted during the Year 1897.

CATERHAM ASYLUM.									DARENTH ASYLUM.									SUMMARY.								
As predisposing cause.			As exciting cause.			TOTAL.*			As predisposing cause.			As exciting cause.			TOTAL.			As predisposing cause.			As exciting cause.			TOTAL.		
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
...	2	2	1	3	4	1	5	6	...	...	...	...	...	...	...	...	...	...	6	6	1	5	6	1	11	12
3	1	4	1	3	4	4	4	8	...	...	...	...	...	...	...	...	...	3	4	7	3	6	9	6	10	16
...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	2	2	...	2	2	...	4	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
...	2	2	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	2	2	2	...	2	2	2	4
11	...	11	...	6	6	11	6	17	...	...	...	...	...	...	...	...	...	11	3	14	9	11	20	20	14	34
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	2	2	2
...	...	...	...	...	...	...	...	...	4	5	9	...	...	...	4	5	9	4	5	9	...	...	...	4	5	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4	4	...	4
2	...	2	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...	2	1	3
4	...	4	...	...	...	4	...	4	...	...	...	1	1	2	1	1	2	8	2	10	1	3	4	9	5	14
...	...	...	...	...	...	...	...	...	1	3	4	...	...	...	1	3	4	1	3	4	...	...	...	1	3	4
...	...	...	...	1	1	...	1	1	3	4	7	...	...	...	3	4	7	3	4	7	...	1	1	3	5	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	1
...	1	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	1	1	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	3	3	...	5	5
3	8	11	...	...	...	3	8	11	...	...	...	...	...	...	...	...	...	15	13	28	...	7	7	15	20	35
...
...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	2	...	2
3	...	3	1	...	1	4	...	4	...	...	...	...	...	...	...	...	...	3	6	9	1	10	11	4	16	20
6	...	6	...	...	...	6	...	6	...	...	...	...	...	...	...	...	...	8	22	30	...	14	14	8	36	44
8	5	13	...	...	...	8	5	13	10	14	24	...	...	...	10	14	24	26	26	52	...	1	1	26	27	53
10	14	24	...	...	...	10	14	24	...	...	...	...	...	...	...	...	...	10	16	26	...	3	3	10	19	29
3	4	7	...	1	1	3	5	8	...	...	...	...	...	...	...	...	...	12	17	29	...	11	11	12	28	40
...	...	...	...	...	...	30	26	56	5	6	11	...	...	...	5	6	11	79	31	110	...	35	35	109	92	201
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	6	21	...	3	3	15	9	24

if the cases appear in both the columns relating to "Predisposing cause" and "Exciting cause."

APPENDIX II.—IMBECILITY.
ASYLUM STATISTICS.—TABLE VII.—*Showing the causes of
calculated from the ages stated*

LEAVESDEN																		
CAUSES OF DEATH.						16		17		18		19		20 to 29		30 to 39		
						M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CEREBRAL OR SPINAL DISEASES—																		
Apoplexy	3	1
Epileptic Exhaustion	1	...	1	...	1	...	...	...	1	...	...
General Paresis	1	3	...	
Dementia and Gradual Exhaustion	
Brain Wasting	1	
Imbecility and Exhaustion	1	...	...
Paraplegia	1	...	...
THORACIC DISEASES—																		
Chronic Bronchitis	1	...	12	2	6	2
Pulmonary Tuberculosis	1	...	
Diseases of the Heart	
Pneumonia	1	...	...	...	...	...	1	...	...	1	
ABDOMINAL DISEASES—																		
Intestinal Obstruction	1	...	1	1	
Peritonitis	
Diseases of Kidneys and Urinary System	
Malignant Disease	
Debility and Old Age	
General Tuberculosis...	1	...	...	3	...	1	1	
Necrosis and Exhaustion	
Tertiary Syphilis	1	
Totals	1	...	2	...	1	1	1	...	20	5	12	7

CATERHAM																	
CEREBRAL OR SPINAL DISEASES—																	
Apoplexy and Paralysis	1	...
Epilepsy and Convulsions	1	...	...	...	...	1	...	
General Paresis	3	...
Maniacal Exhaustion
Exhaustion of Dementia
Cerebral Softening following Thrombosis
Abscess of the Brain
Tumour of Brain	1	...
THORACIC DISEASES—																	
Pneumonia	2	...	...	2
Bronchitis
Phthisis	1	...	...	2	1	...	2
Disease of the Heart	1	...	1	...
Empyæma
ABDOMINAL DISEASES—																	
Peritonitis
Intestinal Obstruction	1
Cirrhosis of Liver...
Cancer of Liver
Cancer of Stomach
Cystitis
Bright's Disease
General Debility and Decay of Old Age
Totals	1	1	...	...	5	2	5	...

Death during the year 1897, together with the Ages of the Decedents on the Orders of Admission.

ASYLUM.

40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Above 100.		Ages Unknown.		TOTAL.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	Tl.
...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2	2
...	2	2	3	...	1	...	1	...	1	...	...	...	...	...	...	8	9	17
2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	6	3	9
3	...	6	2	7	3	...	3	...	...	...	...	...	...	...	...	16	8	24
1	1	2	...	1	1	...	1	...	1	...	...	...	...	...	...	4	5	9
1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	3	1	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	2	2	4
3	4	1	1	...	1	...	...	...	...	...	...	...	...	...	...	23	10	33
...	2	3	1	4	7	3	6	...	2	...	...	...	...	...	...	11	18	29
1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	5	1	6
...	1	1	...	...	...	2	...	...	...	...	...	...	...	...	...	5	2	7
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1
...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	2	3
...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2
...	...	...	...	1	...	6	6	4	5	...	...	...	...	...	...	11	11	22
...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	5	4	9
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
11	13	18	10	19	17	11	22	4	9	...	...	...	...	...	...	100	84	184

ASYLUM.

...	...	1	...	4	...	2	...	...	...	...	...	...	...	...	...	7	...	7
2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3
...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	1	2
1	2	2	2	1	10	...	2	...	...	...	...	...	...	...	...	4	16	20
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
...	2	1	2	3	1	...	...	...	...	...	...	...	...	...	...	6	7	13
...	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	1	4	5
1	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	8	11
...	...	3	3	4	2	1	3	...	...	...	...	...	...	...	...	10	8	18
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	2
...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	4	4
...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	1	2
...	...	1	...	2	...	1	...	...	...	...	...	...	...	...	...	4	...	4
...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	12	9	...	8	...	...	...	...	...	...	12	17	29
5	9	14	13	18	15	17	19	1	8	...	...	...	...	...	...	66	72	138

ASYLUM STATISTICS.—TABLE VII. (continued) —Showing the
calculated from the ages stated

DARENTH												
CAUSES OF DEATH.	16		17		18		19		20 to 29		30 to 39	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CEREBRAL OR SPINAL DISEASES—												
Apoplexy
Paralysis and Myelitis	1	...	...	...
Cerebral Abscess
Dementia and Gradual Exhaustion	1	...	...	...
Epileptic Exhaustion	1	...	1	...	...	...
THORACIC DISEASES—												
Pulmonary Tuberculosis...	3	3	...	1
Pneumonia...	1	...	...
Heart Disease	1	1	...	...
Aneurism of Aorta
ABDOMINAL DISEASES—												
Peritonitis
Scirrhus of Breast...
Diseases of Kidneys and Urinary System
General Tuberculosis	1	...	...	...
Laryngeal Tuberculosis
Senile Decay
Exhaustion after Childbirth...	1
Totals	1	...	8	5	...	2

SUM

CEREBRAL OR SPINAL DISEASES—												
Apoplexy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Apoplexy and Paralysis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy and Convulsions	1	...	1	...	2	...	...	...	3	2	...	...
General Paresis ... ..	...	...	...	...	...	...	...	...	...	1	6	...
Paralysis and Myelitis ... ..	...	...	...	...	...	...	...	...	1	...	...	...
Maniacal Exhaustion ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Epileptic Exhaustion ... ..	...	...	...	...	...	...	1	...	1	...	...	...
Softening of Brain ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Imbecility and Exhaustion ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Brain Wasting ... ..	...	...	...	...	...	...	...	...	...	...	...	1
Exhaustion of Dementia ... ..	...	...	...	...	...	...	...	...	1	...	...	...
Paraplegia ... ..	...	...	...	...	...	...	...	...	...	1	...	...
Tumour of Brain ... ..	...	...	...	...	...	...	...	...	...	...	1	...
Abscess of Brain ... ..	...	...	...	...	...	...	...	...	...	...	...	...
THORACIC DISEASES—												
Aneurism of Aorta ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ... ..	...	...	...	...	...	1	...	...	2	1	...	2
Pneumonia... ..	...	...	1	...	...	...	...	...	3	1	...	3
Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Disease of the Heart ... ..	...	...	...	...	...	...	...	...	2	1	2	...
Empyæmia ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis ... ..	...	...	...	...	...	...	1	...	15	5	6	3
ABDOMINAL DISEASES—												
Intestinal Obstruction ... ..	...	...	...	...	...	...	...	...	1	...	1	2
Scirrhus of Breast (Renal Disease) ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Peritonitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver... ..	...	...	...	...	...	...	...	...	...	...	...	...
Bright's Disease ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Stomach ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Cancer of Liver ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Cystitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Kidneys and Urinary System ... ..	...	...	...	...	...	...	...	...	...	...	...	...
General Tuberculosis... ..	...	...	...	...	...	1	...	...	4	...	1	1
Laryngeal Tuberculosis ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Necrosis and Exhaustion ... ..	...	...	...	...	...	...	...	...	...	...	...	...
General Debility and Decay of Old Age ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Tertiary Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	1
Malignant Disease ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Exhaustion after Childbirth... ..	...	...	...	...	...	...	...	...	...	...	...	1
Grand Totals	1	...	2	...	2	2	2	...	33	12	17	14

causes of Death during the year 1897, together with the Ages of the Decedents,
on the orders of Admission.

ASYLUM.

40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Above 100.		Ages not known.		TOTAL.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Tl.
...	1	...	...	...	...	...	...	...	...	...	1	...	1
...	1	...	...	...	...	...	...	...	...	1	...	1
...	1	1
...	1	...	...	...	...	...	...	...	...	...	...	1	1	2
...	2	...	2
...	1	1	...	...	...	...	...	...	...	...	...	...	...	4	5	9
...	1	2	1	...	...	...	...	...	...	...	...	2	3	5
...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	3	3
...	1	...	1	...	...	...	...	...	...	...	2	...	2
...	1	...	1
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	1	...	...	...	...	1	1	1
...	1	1
...	1	1
...	5	4	2	4	3	1	...	...	1	...	...	...	...	18	18	36

MARY.

...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	1	2	3
...	...	1	...	4	...	2	...	...	...	...	...	...	...	...	...	7	...	7
2	2	5	3	...	1	...	1	...	1	...	...	...	...	...	...	14	10	24
2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	9	3	12
...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3	1	4
1	1	2	...	1	1	...	1	...	1	...	...	...	...	...	...	4	5	9
4	2	8	4	8	14	...	5	...	...	...	...	...	...	...	...	21	25	46
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	3	3
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
1	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	8	11
1	2	2	2	4	2	2	1	...	...	...	...	...	...	...	...	13	11	24
...	1	1	3	2	2	...	...	...	...	...	...	...	...	...	...	3	6	9
...	2	6	5	8	9	4	9	...	2	...	...	...	...	...	...	22	28	50
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
3	4	1	2	1	1	...	...	...	...	...	...	...	...	...	...	27	15	42
...	2	1	...	...	1	2	1	...	...	...	...	...	...	...	...	5	6	11
...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	3	3
1	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	3	1	4
...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4	...	1
...	...	1	...	2	...	1	...	...	...	...	...	...	...	...	...	1	1	4
...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	1	2
...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2
...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	3	2	5
...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	6	4	10
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	2	...	18	15	4	13	...	1	...	...	...	...	24	29	53
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
16	22	32	28	41	34	32	44	6	17	...	1	...	...	...	...	184	174	358

ASYLUM STATISTICS.—TABLE VIII.—*Showing the History of the Annual numbers of each year's admissions*

YEAR.	ADMITTED.							OF EACH YEAR'S ADMISSIONS, DISCHARGED AND DIED IN 1897.															
	New Cases.		Relapsed Cases.		From other Asylums of Board.		Tl.	Recovered.			Improved.			Not Improved.			To other Asylums of Board.			Died.			
	M.	F.	M.	F.	M.	F.		M.	F.	Tl.	M.	F.	T.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	
LEAVESDEN ASYLUM.																							
1870 (part of)...	468	556	...	...	...	..	1,024	...	...	...	1	1	2	...	...	...	...	...	...	2	3	5
1871 ...	520	545	...	...	...	...	1,065	...	...	...	...	...	...	...	1	1	...	...	...	4	4	8
1872 ...	163	256	...	...	...	...	419	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4
1873 ...	141	165	...	...	41	30	377	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
1874 ...	115	149	1	...	1	13	279	...	...	...	...	...	...	...	1	1	...	...	...	1	1	2
1875 ...	111	108	1	1	...	...	221	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4
1876 ...	158	79	...	...	126	184	547	...	...	...	...	...	...	...	1	1	...	...	...	3	4	7
1877 ...	95	...	...	...	1	4	100	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1878 ...	69	1	1	...	13	...	84	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1879 ...	80	89	...	...	...	...	169	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
1880 ...	92	75	...	...	...	...	167	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1881 ...	85	71	4	1	...	...	161	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
1882 ...	82	85	3	2	...	...	172	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
1883 ...	75	106	5	1	...	...	187	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
1884 ...	56	96	2	...	...	...	154	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1885 ...	71	97	2	...	...	...	170	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
1886 ...	62	83	3	3	...	...	151	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
1887 ...	80	92	2	...	...	...	174	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
1888 ...	71	83	2	...	...	...	156	...	...	...	...	...	...	1	...	1	...	...	...	3	1	4
1889 ...	140	121	2	1	...	...	264	...	...	...	...	...	...	...	1	1	...	...	...	1	5	6
1890 ...	162	155	1	2	...	...	320	...	...	...	...	...	...	...	...	...	...	...	...	6	3	9
1891 ...	176	148	3	2	...	...	329	...	...	...	...	...	...	2	...	2	...	...	...	5	3	8
1892 ...	181	149	4	2	...	1	337	...	...	...	...	1	1	2	...	2	...	...	...	4	7	11
1893 ...	156	95	4	...	...	...	255	1	...	1	...	...	...	3	...	3	...	...	...	3	4	7
1894 ...	148	112	6	...	...	...	266	1	...	1	...	1	1	1	1	2	...	...	...	9	3	12
1895 ...	125	125	1	2	...	...	253	1	...	1	2	..	2	3	...	3	...	...	...	14	18	32
1896 ...	136	100	3	2	...	...	241	4	...	4	2	2	4	3	2	5	...	...	...	16	10	26
1897 ...	143	102	2	1	...	...	248	5	...	5	3	1	4	3	3	6	...	...	...	18	4	22
Totals ...	3,961	3,843	52	20	182	232	8,290	13	...	13	8	6	14	*	18	10	28	100	84	184
CATERHAM ASYLUM.																							
1870 (part of) ...	156	202	...	...	...	...	358	...	...	...	...	...	...	...	...	...	...	...	...	3	2	5
1871 ...	664	870	...	...	...	...	1,534	...	...	...	...	...	...	...	...	...	...	...	...	5	8	13
1872 ...	259	161	...	...	...	...	420	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1873 ...	183	167	1	...	...	...	351	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
1874 ...	240	169	2	3	72	36	522	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875 ...	158	180	...	...	...	...	338	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
1876 ...	173	170	5	5	33	167	553	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4
1877 ...	178	56	2	...	...	1	237	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
1878 ...	157	47	...	...	17	...	221	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4
1879 ...	176	84	...	...	6	...	266	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4
1880 ...	122	87	2	6	...	...	217	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
1881 ...	122	105	...	...	...	...	227	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
1882 ...	81	85	...	2	...	...	168	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
1883 ...	73	37	3	3	...	...	116	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
1884 ...	98	102	2	1	...	...	203	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1885 ...	59	48	3	3	...	...	113	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
1886 ...	115	91	3	1	...	...	210	...	...	...	...	...	...	...	...	...	...	...	...	1	4	5
1887 ...	103	90	2	1	...	...	196	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4
1888 ...	83	81	...	...	...	...	164	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1
1889 ...	92	78	...	1	...	...	171	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1
1890 ...	119	122	2	1	..	...	244	...	...	...	...	...	...	1	...	1	...	...	...	...	2	2
1891 ...	104	108	...	...	...	...	212	...	...	...	...	...	...	2	...	2	...	...	...	4	3	7
1892 ...	101	114	2	1	...	...	218	...	...	...	...	...	...	...	...	...	...	...	...	4	4	8
1893 ...	86	76	...	...	...	...	162	...	...	...	...	...	...	...	1	1	...	...	...	4	6	10
1894 ...	100	112	2	1	...	...	215	...	...	...	2	...	2	...	1	1	...	...	...	2	11	13
1895 ...	85	75	...	1	...	...	161	...	1	1	...	...	...	1	1	2	...	...	...	3	8	11
1896 ...	83	59	1	...	1	...	144	...	2	2	1	...	1	1	1	2	...	...	...	12	4	16
1897 ...	84	58	..	...	...	...	142	1	...	1	2	...	2	3	...	3	...	...	...	12	2	14
Totals ...	4,054	3,634	32	30	129	204	8,083	1	4	5	5	...	5	8	5	13	...	...	...	66	72	138

* Includes two not insane.

Admissions since the opening of the Asylums, with the Discharges and Deaths and the remaining on December 31st, 1897.

TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS TO DECEMBER 31ST, 1897.															REMAINING OF EACH YEAR'S ADMISSIONS, DECEMBER 31ST, 1897.		
Recovered.			Improved.			Not Improved.			To other Asylums of Board.			Died.			M.	F.	Tl.
M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.			
15	8	23	26	20	46	24	44	68	12	4	16	329	416	745	62	64	126
20	15	35	29	23	52	49	49	98	15	10	25	352	375	727	55	73	128
12	6	18	12	11	23	14	14	28	5	14	19	118	176	294	2	35	37
9	4	13	8	6	14	17	21	38	10	5	15	125	133	258	13	26	39
7	2	9	2	7	9	13	17	30	2	...	2	91	116	207	2	20	22
5	3	8	3	5	8	17	13	30	...	...	...	74	70	144	13	18	31
13	3	16	18	7	25	11	13	24	...	...	...	199	184	383	43	56	99
7	...	7	5	...	5	3	...	3	...	...	...	64	1	65	17	3	20
5	...	5	4	...	4	3	...	3	...	...	...	57	1	58	14	...	14
3	3	6	3	5	8	3	7	10	...	...	...	57	52	109	14	22	36
8	4	12	9	8	17	8	2	10	...	...	...	57	35	92	10	26	36
10	7	17	6	5	11	7	3	10	...	...	...	56	44	100	10	13	23
3	6	9	3	5	8	3	3	6	...	...	...	62	58	120	14	15	29
4	2	6	5	8	13	4	7	11	...	...	...	57	62	119	10	28	38
1	8	9	3	3	6	5	7	12	...	...	...	36	62	98	13	16	29
4	9	13	5	3	8	5	8	13	...	...	...	49	55	104	10	22	32
3	...	3	3	1	4	7	3	10	...	...	...	35	51	86	17	31	48
4	3	7	5	2	7	5	4	9	...	...	...	53	57	110	15	26	41
5	3	8	4	2	6	6	3	9	...	...	...	47	44	91	11	31	42
9	4	13	9	5	14	7	10	17	...	...	...	90	65	155	27	38	65
14	11	25	10	8	18	9	6	15	...	...	...	93	79	172	37	53	90
14	5	19	7	9	16	9	11	20	...	...	...	102	67	169	47	58	105
14	6	20	9	3	12	16	10	26	..	...	...	87	63	150	59	70	129
11	3	14	8	2	10	12	4	16	...	...	...	78	42	120	51	44	95
8	2	10	7	4	11	15	8	23	...	...	...	61	37	98	63	61	124
7	1	8	7	2	9	14	4	18	2	1	3	33	43	76	63	76	139
7	...	7	3	3	6	7	3	10	...	...	...	30	17	47	92	79	171
5	...	5	3	1	4	3	3	6	...	...	...	18	4	22	116	95	211
227	118	345	216	158	374	296	277	573	46	34	80	2,510	2,409	4,919	900	1,099	1,999
4	4	8	7	13	20	6	7	13	2	1	3	106	139	245	31	38	69
47	31	78	50	30	80	47	36	83	19	6	25	461	644	1,105	40	123	163
24	12	36	24	10	34	11	9	20	16	11	27	170	106	276	14	13	27
19	10	29	19	6	25	13	19	32	11	8	19	102	111	213	20	13	33
18	24	42	30	13	43	1	...	1	36	18	54	198	124	322	31	29	60
13	11	24	10	8	18	8	8	16	1	3	4	114	125	239	12	25	37
2	11	13	21	13	34	5	9	14	...	...	...	146	225	371	37	84	121
...	...	..	14	4	18	5	3	8	1	...	1	129	36	165	31	14	45
5	3	8	11	1	12	4	5	9	1	...	1	113	27	140	40	11	51
6	4	10	9	4	13	13	1	14	...	...	...	123	44	167	31	31	62
7	4	11	11	7	18	8	7	15	...	...	...	80	55	135	18	20	38
3	2	5	6	5	11	10	4	14	...	...	...	72	70	142	31	24	55
9	10	19	5	5	10	2	5	7	...	...	...	45	51	96	20	16	36
11	4	15	4	3	7	3	1	4	...	1	1	39	20	59	19	11	30
7	12	19	9	10	19	5	4	9	...	...	...	56	52	108	23	25	48
2	2	4	...	1	1	5	2	7	...	...	...	38	33	71	17	13	30
12	5	17	7	6	13	7	4	11	...	..	...	64	49	113	28	28	56
7	4	11	6	2	8	6	6	12	...	...	...	52	44	96	34	35	69
4	4	8	6	...	6	5	6	11	...	...	...	43	45	88	25	26	51
8	3	11	4	4	8	5	8	13	...	...	...	53	33	86	22	31	53
6	6	12	3	3	6	9	5	14	...	..	...	57	54	111	46	55	101
5	2	7	1	2	3	4	4	8	...	...	...	45	48	93	49	52	101
2	2	4	1	1	2	4	9	13	...	...	...	40	37	77	56	66	122
8	3	11	2	5	7	8	4	12	...	.	...	38	24	62	30	40	70
6	1	7	6	3	9	2	3	5	...	...	...	38	26	64	50	80	130
4	4	8	3	2	5	7	4	11	...	...	...	20	18	38	51	48	99
2	2	4	2	1	3	3	4	7	...	...	...	21	9	30	57	43	100
1	...	1	2	...	2	3	...	3	...	...	...	12	2	14	66	56	122
242	180	422	273	162	435	209	177	386*	87	48	135	2,475	2,251	4,726	929	1,050	1,979

* Includes five males and two females not insane.

ASYLUM STATISTICS.—TABLE VIII. (continued)—Showing the History of Deaths, and the numbers of each year's

YEAR.			ADMITTED.						OF EACH YEAR'S ADMISSIONS, DISCHARGED AND DIED IN 1897.																
			New Cases.		Relapsed Cases.		From other Asylums of Board.		Total.	Recovered.			Impr'ved.			Not Improved.			To other Asylums of Board.			Died.			
			Males.	Females.	Males.	Females.	Males.	Females.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
DARENTH ASYLUM.																									
1880	...	...	...	163	...	...	25	54	242	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
1881	...	...	...	15	...	1	...	13	29	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
1882	...	...	152	185	...	1	78	17	433	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
1883	...	...	107	153	...	...	6	8	274	...	...	...	...	...	...	...	...	...	...	...	2	1	3	3
1884	...	...	57	67	...	...	...	...	124	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1885	...	...	40	54	...	...	22	30	146	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
1886	...	...	45	62	1	1	20	8	137	...	...	...	...	...	...	...	...	...	...	...	1	1	2	2
1887	...	...	41	35	...	4	12	69	161	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
1888	...	...	49	70	...	...	124	46	289	...	...	...	...	...	1	...	1	...	...	...	1	1	2	2
1889	...	...	127	112	1	1	26	9	276	...	...	...	...	...	...	...	...	...	...	...	3	...	3	3
1890	...	...	74	86	...	...	...	...	160	...	...	...	...	1	1	...	...	...	...	...	2	1	3	3
1891	...	...	59	92	...	...	...	...	151	...	...	...	...	...	...	...	...	...	...	...	1	2	3	3
1892	...	...	24	19	...	1	11	31	86	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
1893	...	...	...	23	...	...	45	44	112	...	...	...	...	...	...	...	...	...	...	...	2	...	2	2
1894	...	...	...	66	...	...	38	13	117	...	...	...	...	...	1	1	2	...	...	...	5	4	9	9
1895	...	...	...	20	...	...	25	45	90	...	...	...	...	...	1	...	1	...	...	...	...	3	3	3
1896	...	...	...	...	...	...	27	29	56	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...
1897	...	...	...	...	...	...	24	33	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals			775	1,222	2	9	483	449	2,040	1	1	4	2	6	18	18	36	36

SUMMARY.																									
Part of }																									
1870	624	758	1,382	1	1	2	5	5	10	10
1871	1,184	1,415	2,599	1	1	9	12	21	21
1872	...	...	422	417	...	...	...	...	839	...	...	...	...	...	...	...	...	...	...	...	1	3	4	4
1873	...	...	324	332	1	...	41	30	728	...	...	...	...	...	...	...	...	...	...	...	3	2	5	5
1874	355	318	3	3	73	49	801	1	1	1	1	2	2
1875	...	...	269	288	1	1	...	...	559	...	...	...	...	...	...	...	...	...	...	...	3	4	7	7
1876	331	249	5	5	159	351	1,100	1	1	4	7	11	11
1877	...	...	273	56	2	...	1	5	337	...	...	...	...	...	...	...	...	...	...	...	1	1	2	2
1878	...	...	226	48	1	...	30	...	305	...	...	...	...	...	...	...	...	...	...	...	5	...	5	5
1879	...	...	256	173	...	...	6	...	435	...	...	...	...	...	...	...	...	...	...	...	2	3	5	5
1880	214	325	2	6	25	54	626	1	1	2	1	3	3
1881	...	...	207	191	4	2	...	13	417	...	...	...	...	...	...	...	...	...	...	...	2	2	4	4
1882	...	...	315	355	3	5	78	17	773	...	...	...	...	...	...	...	...	...	...	...	2	3	5	5
1883	...	...	255	296	8	4	6	8	577	1	...	1	...	...	...	...	...	...	...	...	2	2	4	4
1884	...	...	211	265	4	1	...	...	481	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1885	...	...	170	199	5	3	22	30	429	...	...	...	...	...	...	...	...	...	...	...	1	5	6	6
1886	...	...	222	236	7	5	20	8	498	...	...	...	...	...	...	...	...	...	...	...	4	6	10	10
1887	...	...	224	217	4	5	12	69	531	...	...	...	...	...	...	...	...	...	...	...	3	4	7	7
1888	...	...	203	234	2	...	124	46	609	...	...	...	...	...	2	1	3	...	...	...	4	3	7	7
1889	...	...	359	311	3	3	26	9	711	...	1	1	...	...	...	1	1	...	...	...	4	6	10	10
1890	...	...	355	363	3	3	...	...	724	...	...	...	...	1	1	1	...	1	...	...	8	6	14	14
1891	...	...	339	348	3	2	...	...	692	...	...	...	...	...	4	...	4	...	...	...	10	8	18	18
1892	...	...	306	282	6	4	11	32	641	...	...	...	...	1	1	2	...	2	...	...	8	13	21	21
1893	...	...	242	194	4	...	45	44	529	1	...	1	...	...	3	1	4	...	...	...	9	10	19	19
1894	...	...	248	290	8	1	38	13	598	1	...	1	2	1	3	2	3	5	...	...	16	18	34	34
1895	...	...	210	220	1	3	25	45	504	1	1	2	2	...	2	5	1	6	...	...	17	29	46	46
1896	...	...	219	159	4	2	28	29	441	4	2	6	3	2	5	5	3	8	...	...	28	14	42	42
1897	...	...	227	160	2	1	24	33	447	6	...	6	5	1	6	6	3	9	...	...	30	6	36	36
Grand Totals...			8,790	8,699	86	59	794	885	19,313	14	4	18	13	7	20	*	30	17	47	184	174	358	358

* Includes two not insane.

the Annual Admissions since the opening of the Asylum, with the Discharges and admissions remaining on December 31st, 1897.

TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS,
DECEMBER 31st, 1897.

REMAINING OF
EACH YEAR'S
ADMISSIONS,
DECEMBER 31st, 1897.

Recovered.			Improved.			Not Improved.			To other Asylums of Board.			Died.					
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
2	3	5	6	12	18	1	23	24	...	3	3	3	128	131	13	48	61
...	2	2	...	5	5	...	1	1	...	...	...	...	15	15	...	6	6
8	4	12	22	15	37	8	19	27	2	1	3	132	118	250	58	46	104
7	6	13	12	13	25	14	7	21	...	1	1	63	95	158	17	39	56
7	3	10	7	8	15	7	6	13	...	...	...	28	40	68	8	10	18
6	3	9	11	9	20	4	5	9	2	2	4	24	43	67	15	22	37
...	...	...	12	12	24	1	10	11	2	1	3	28	30	58	23	18	41
...	...	...	14	4	18	3	8	11	...	45	45	21	29	50	15	22	37
...	...	...	13	12	25	12	9	21	56	26	82	36	44	80	56	25	81
...	...	...	13	14	27	15	7	22	11	3	14	69	51	120	46	47	93
...	...	...	2	8	10	12	6	18	...	...	...	35	46	81	25	26	51
7	12	19	2	1	3	8	2	10	...	...	...	25	43	68	17	34	51
...	...	...	1	3	4	2	3	5	...	...	...	12	15	27	20	30	50
...	2	2	1	...	1	1	2	3	...	...	...	7	9	16	36	54	90
1	...	1	2	...	2	2	5	7	...	...	...	7	18	25	26	56	82
...	...	...	...	4	4	1	1	2	...	...	...	...	7	7	24	53	77
...	...	...	...	3	3	1	...	1	...	...	...	...	...	...	26	26	52
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	33	57
38	35	73	118	123	241	92	114	206	73	82	155	490	731	1,221	449	595	1,044
19	12	31	33	33	66	30	51	81	14	5	19	435	555	990	93	102	195
67	46	113	79	53	132	96	85	181	34	16	50	813	1,019	1,832	95	196	291
36	18	54	36	21	57	25	23	48	21	25	46	288	282	570	16	48	64
28	14	42	27	12	39	30	40	70	21	13	34	227	244	471	33	39	72
25	26	51	32	20	52	14	17	31	38	18	56	289	240	529	33	49	82
18	14	32	13	13	26	25	21	46	1	3	4	188	195	383	25	43	68
15	14	29	39	20	59	16	22	38	...	...	...	345	409	754	80	140	220
7	...	7	19	4	23	8	3	11	1	...	1	193	37	230	48	17	65
10	3	13	15	1	16	7	5	12	1	...	1	170	28	198	54	11	65
9	7	16	12	9	21	16	8	24	...	...	...	180	96	276	45	53	98
17	11	28	26	27	53	17	32	49	...	3	3	140	218	358	41	94	135
13	11	24	12	15	27	17	8	25	...	...	...	128	129	257	41	43	84
20	20	40	30	25	55	13	27	40	2	1	3	239	227	466	92	77	169
22	12	34	21	24	45	21	15	36	...	2	2	159	177	336	46	78	124
15	23	38	19	21	40	17	17	34	...	...	...	120	154	274	44	51	95
12	14	26	16	13	29	14	15	29	2	2	4	111	131	242	42	57	99
15	5	20	22	19	41	15	17	32	2	1	3	127	130	257	68	77	145
11	7	18	25	8	33	14	18	32	...	45	45	126	130	256	64	83	147
9	7	16	23	14	37	23	18	41	56	26	82	126	133	259	92	82	174
17	7	24	26	23	49	27	25	52	11	3	14	212	149	361	95	116	211
20	17	37	15	19	34	30	17	47	...	...	...	185	179	364	108	134	242
26	19	45	10	12	22	21	17	38	...	...	...	172	158	330	113	144	257
16	8	24	11	7	18	22	22	44	...	...	...	139	115	254	135	166	301
19	8	27	11	7	18	21	10	31	...	...	...	123	75	198	117	138	255
15	3	18	15	7	22	19	16	35	...	...	...	106	81	187	139	197	336
11	5	16	10	8	18	22	9	31	2	1	3	53	68	121	138	177	315
9	2	11	5	7	12	11	7	18	...	...	...	51	26	77	175	148	323
6	...	6	5	1	6	6	3	9	...	...	...	30	6	36	206	184	390
507	333	* 840	607	443	1050	597	568	† 1165	206	164	370	5,475	5,391	10,866	2,278	2,744	5,022

* Includes the "not certified cases."—Vide Table II., p. 117.

† Includes the "not insane" cases in same table.

ASYLUM STATISTICS.—TABLE IX.—*Showing the length of residence of*

LENGTH OF RESIDENCE.								LEAVESDEN ASYLUM.					
								RECOVERED.			DIED.		
								M.	F.	Total.	M.	F.	Total.
Under 1 Month	...	...	...	...	...	...	...	...	...	...	3	...	3
From 1 to 3 Months	...	...	...	...	...	...	...	5	...	5	3	4	7
„ 3 to 6 „	...	...	...	...	...	...	...	3	...	3	8	...	8
„ 6 to 9 „	...	...	...	...	...	...	...	1	...	1	6	2	8
„ 9 to 12 „	...	...	...	...	...	...	...	1	...	1	7	4	11
„ 1 to 2 Years	...	...	...	...	...	...	...	2	...	2	13	16	29
„ 2 to 3 „	...	...	...	...	...	...	...	...	...	...	16	9	25
„ 3 to 5 „	...	...	...	...	...	...	...	...	...	...	6	10	16
„ 5 to 7 „	...	...	...	...	...	...	...	...	...	...	9	5	14
„ 7 to 10 „	...	...	...	...	...	...	...	...	...	...	8	8	16
„ 10 to 12 „	...	...	...	...	...	...	...	...	...	...	2	5	7
„ 12 to 14 „	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 14 to 16 „	...	...	...	...	...	...	...	1	...	1	2	1	3
„ 16 to 18 „	...	...	...	...	...	...	...	...	...	...	1	1	2
„ 18 to 20 „	...	...	...	...	...	...	...	...	...	...	2	1	3
„ 20 and upwards...	...	...	...	...	...	...	...	...	...	...	14	18	32
Totals	...	...	...	...	...	...	...	13	...	13	100	84	184

ASYLUM STATISTICS.—TABLE X.—*Showing the Ages of Patients resident in the several Asylums on the Orders*

Years ending December 31st.								Under 16		16		17		18		19		20		20 to 29	
								M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
LEAVESDEN ASYLUM.																					
1888 ...	...	...	...	...	...	...	...	...	...	23	17	27	25	28	2	41	14	29	16	184	168
1889 ...	...	...	...	...	...	...	...	...	...	26	20	28	28	31	6	44	15	30	16	191	168
1890 ...	...	...	...	...	...	...	...	...	...	1	2	5	2	7	8	7	6	4	7	126	77
1891 ...	...	...	...	...	...	...	...	...	...	4	1	4	4	11	5	10	8	9	8	123	77
1892 ...	...	...	...	...	...	...	...	...	...	6	2	16	2	9	9	10	5	9	11	120	88
1893 ...	...	...	...	...	...	...	...	...	...	5	3	9	4	18	3	11	14	14	8	132	100
1894 ...	...	...	...	...	...	...	...	...	...	6	5	11	10	22	6	11	17	14	12	139	100
1895 ...	...	...	...	...	...	...	...	...	...	8	6	15	13	25	6	14	18	13	14	148	100
1896 ...	...	...	...	...	...	...	...	...	...	12	8	16	19	32	8	13	20	15	16	142	122
1897 ...	...	...	...	...	...	...	...	...	...	3	5	9	7	12	5	10	11	15	8	144	111
CATERHAM ASYLUM.																					
1888 ...	...	...	...	...	...	...	...	...	...	2	3	2	8	8	7	12	14	25	19	170	150
1889 ...	...	...	...	...	...	...	...	...	...	3	4	4	9	9	9	13	15	26	21	165	150
1890 ...	...	...	...	...	...	...	...	1	...	...	4	2	2	3	4	5	2	8	5	148	113
1891 ...	...	...	...	...	...	...	...	...	1	1	3	3	3	4	5	6	4	7	6	145	111
1892 ...	...	...	...	...	...	...	...	...	...	5	2	4	6	5	8	8	12	9	11	147	110
1893 ...	...	...	...	...	...	...	...	...	...	1	3	6	8	7	9	10	13	12	14	140	111
1894 ...	...	...	...	...	...	...	...	...	...	4	3	10	12	10	13	16	18	14	16	142	111
1895 ...	...	...	...	...	...	...	...	...	...	10	4	15	13	14	14	15	21	17	18	150	133
1896 ...	...	...	...	...	...	...	...	...	...	11	5	15	16	18	14	16	21	18	19	154	141
1897 ...	...	...	...	...	...	...	...	...	...	14	5	21	19	19	14	20	22	19	18	153	141
DARENTH ASYLUM.																					
1888 ...	...	...	...	...	...	...	...	...	...	32	28	35	23	33	23	29	14	32	22	133	140
1889 ...	...	...	...	...	...	...	...	...	...	27	8	42	32	33	29	30	25	27	14	153	150
1890 ...	...	...	...	...	...	...	...	...	...	6	3	16	8	25	21	26	17	25	20	158	130
1891 ...	...	...	...	...	...	...	...	...	...	3	6	8	6	16	9	27	22	26	19	178	140
1892 ...	...	...	...	...	...	...	...	...	...	7	9	9	18	15	11	15	14	26	24	189	148
1893 ...	...	...	...	...	...	...	...	1	...	13	16	13	13	15	22	19	14	17	17	208	140
1894 ...	...	...	...	...	...	...	...	...	1	8	8	20	17	18	13	17	21	26	17	199	150
1895 ...	...	...	...	...	...	...	...	...	1	4	16	14	18	22	20	20	12	19	22	201	150
1896 ...	...	...	...	...	...	...	...	...	...	10	10	10	20	17	19	24	19	19	10	196	154
1897 ...	...	...	...	...	...	...	...	...	...	8	14	16	17	11	19	18	19	23	20	189	150
SUMMARY.																					
1888 ...	...	...	...	...	...	...	...	...	...	57	48	64	56	69	32	82	42	86	57	487	462
1889 ...	...	...	...	...	...	...	...	...	...	56	32	74	69	73	44	87	55	83	51	509	477
1890 ...	...	...	...	...	...	...	...	1	...	7	9	24	2	35	33	38	25	37	29	432	319
1891 ...	...	...	...	...	...	...	...	...	1	8	10	15	13	31	19	43	34	42	33	446	330
1892 ..	...	...	...	...	...	...	...	...	...	18	13	29	26	29	28	33	31	44	46	456	344
1893 ...	...	...	...	...	...	...	...	1	...	19	22	28	25	40	34	40	41	43	39	480	460
1894 ...	...	...	...	...	...	...	...	...	1	18	16	41	39	50	32	44	56	54	45	480	370
1895 ...	...	...	...	...	...	...	...	...	1	22	26	44	44	61	40	49	51	49	54	499	394
1896 ...	...	...	...	...	...	...	...	...	...	33	23	41	55	67	41	53	60	52	45	492	419
1897 ...	...	...	...	...	...	...	...	...	...	25	24	46	43	42	38	48	52	57	46	486	407

those discharged recovered, and of those who have died during the year 1897.

CATERHAM ASYLUM.						DARENTH ASYLUM.						SUMMARY.								
RECOVERED.			DIED.			RECOVERED.			DIED.			RECOVERED.			DIED.			M.	F.	Total.
M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	4	...	4			
1	...	1	5	...	5	...	...	...	...	...	...	6	...	6	8	4	12			
...	1	1	7	3	10	...	...	...	...	...	...	3	1	4	15	3	18			
...	...	...	3	...	3	...	...	...	...	...	...	1	...	1	9	2	11			
...	...	...	4	...	4	...	...	...	...	...	...	1	...	1	11	4	15			
...	1	1	7	9	16	...	...	...	...	1	1	2	1	3	20	26	46			
...	1	1	2	14	16	...	...	...	...	1	1	...	1	1	18	24	42			
...	...	...	7	7	14	...	...	...	...	3	3	...	...	...	13	20	33			
...	...	...	5	9	14	...	...	...	...	2	4	6	...	...	16	18	34			
...	1	1	1	3	4	...	...	...	10	2	12	...	1	1	19	13	32			
...	...	...	3	4	7	...	...	...	1	1	2	...	...	...	6	10	16			
...	...	...	1	1	2	...	...	...	1	1	2	...	...	...	2	2	4			
...	...	...	1	2	3	...	...	...	...	2	2	1	...	1	3	5	8			
...	...	...	4	3	7	...	...	...	3	...	3	...	...	...	8	4	12			
...	...	...	5	4	9	...	...	...	...	...	...	...	...	...	7	5	12			
...	...	...	10	13	23	...	...	...	1	3	4	...	...	...	25	34	59			
1	4	5	66	72	138	...	..	...	18	18	36	14	4	18	184	174	358			

December 31st in 1888, and on the same day in each subsequent year, calculated from the ages stated of Admission.

30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Above 100.		Ages not known.		TOTALS.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
190	247	195	260	104	202	55	131	...	...	...	...	...	...	...	...	7	13	883	1,089	1,972
180	256	198	259	94	192	56	122	...	...	...	...	...	...	...	...	5	...	883	1,082	1,965
178	195	175	240	174	212	102	178	46	114	7	32	1	5	...	...	8	16	841	1,093	1,934
188	188	180	222	166	224	116	177	47	128	8	29	1	3	...	...	5	10	872	1,082	1,954
184	197	194	212	156	207	124	207	50	120	6	23	1	2	...	...	4	12	889	1,098	1,987
185	208	187	209	166	212	113	198	49	111	4	11	1	2	...	1	5	12	899	1,096	1,995
177	206	183	211	162	212	114	187	50	104	1	5	...	2	...	1	5	12	895	1,096	1,991
179	216	178	214	167	214	109	184	37	86	...	1	...	1	...	...	4	12	897	1,094	1,991
175	219	182	212	165	206	106	175	32	78	...	...	...	...	...	...	4	11	894	1,096	1,990
167	181	194	223	156	217	125	172	56	118	2	26	..	3	...	2	7	10	900	1,099	1,999
180	182	165	189	150	190	149	184	60	74	7	28	...	..	...	...	...	...	930	1,052	1,982
184	190	151	178	149	180	142	177	63	72	9	33	1	...	...	...	...	...	919	1,046	1,965
210	220	187	201	152	191	138	183	51	89	11	36	...	1	1	...	2	7	919	1,058	1,977
205	226	196	196	160	186	142	182	54	91	14	40	...	...	...	...	...	6	937	1,064	2,001
200	230	192	198	162	184	140	185	56	88	13	37	...	...	...	...	...	...	941	1,071	2,012
202	232	190	192	163	180	138	181	55	85	14	33	...	...	...	...	...	...	938	1,064	2,002
190	226	193	195	160	175	130	180	50	90	10	28	1	...	...	...	...	...	930	1,074	2,004
185	218	190	190	157	174	122	178	47	84	10	23	1	...	...	...	...	...	923	1,072	2,005
183	219	187	188	155	170	111	173	49	85	8	22	...	...	...	...	...	...	925	1,073	1,998
183	223	193	181	153	165	106	166	41	77	7	15	..	...	...	...	...	...	929	1,050	1,979
29	65	28	67	21	39	31	68	13	33	2	18	...	1	...	..	...	...	418	547	965
46	86	37	75	25	55	43	66	19	42	2	17	...	...	...	...	...	...	484	600	1,084
52	97	39	65	26	67	42	63	22	46	4	11	...	1	...	...	...	2	441	551	992
56	105	39	81	25	62	42	64	22	49	4	14	...	1	...	...	...	2	446	580	1,026
54	108	39	77	23	62	36	59	19	38	4	12	...	3	...	...	...	2	436	582	1,018
49	102	42	69	18	71	30	51	14	37	5	11	...	3	..	...	...	3	444	575	1,019
58	113	37	76	16	70	30	58	13	40	5	9	...	2	...	...	...	2	447	599	1,046
70	110	36	71	16	74	27	56	14	37	4	8	...	2	...	...	...	1	447	598	1,045
79	115	34	72	19	69	23	53	13	32	3	7	...	2	...	...	...	1	447	583	1,030
100	121	31	73	20	69	18	49	13	32	2	9	...	1	...	...	...	1	449	595	1,044
399	494	388	516	275	431	235	383	73	107	9	46	...	1	...	...	7	13	2,231	2,688	4,919
410	432	386	512	268	427	241	365	82	114	11	50	1	...	...	...	5	...	2,286	2,728	5,014
440	512	365	506	392	470	282	424	119	249	22	79	1	7	1	...	10	25	2,201	2,702	4,903
449	519	415	503	391	472	300	423	123	268	26	83	1	4	...	...	5	18	2,255	2,726	4,981
438	535	425	487	341	461	300	451	125	256	23	72	1	5	...	...	4	14	2,266	2,751	5,017
436	542	419	470	347	463	281	430	118	133	23	55	1	5	...	1	5	15	2,281	2,735	5,016
425	545	413	482	338	457	274	425	113	234	16	42	1	4	...	1	5	14	2,272	2,769	5,041
434	544	404	475	340	462	258	418	98	207	14	32	1	3	...	...	4	13	2,277	2,764	5,041
437	553	403	472	339	445	240	401	94	195	11	29	...	2	..	...	4	12	2,266	2,752	5,018
450	525	418	477	329	451	249	387	110	227	11	50	...	4	...	2	7	11	2,278	2,744	5,022

APPENDIX II.—IMBECILITY.
ASYLUM STATISTICS.—TABLE XI.—*Showing the Ages
calculated from the ages stated*

LEAVESDEN ASYLUM.

AGES.	The Admissions.						The Discharges.						The Deaths.		
	From Parishes and Unions.			From other Asylums of Board.			Recovered.			Removed, Improved, or otherwise.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 5 to 10 years ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 10 to 15 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
„ 15 to 20 „ ...	18	11	29	...	...	...	...	...	...	2	2	4	5	2	7
„ 20 to 30 „ ...	30	13	43	...	...	...	1	...	1	7	5	12	20	6	26
„ 30 to 40 „ ...	26	15	41	...	...	...	4	...	4	7	4	11	13	7	20
„ 40 to 50 „ ...	26	17	43	...	...	...	5	...	5	3	4	7	10	11	21
„ 50 to 60 „ ...	13	20	33	...	...	...	1	...	1	3	...	3	22	13	35
„ 60 to 70 „ ...	17	14	31	...	...	...	2	...	2	3	1	4	17	17	34
„ 70 to 80 „ ...	11	10	21	...	...	...	...	...	...	1	...	1	9	22	31
„ 80 to 90 „ ...	1	3	4	...	...	...	...	...	...	...	...	...	4	6	10
„ 90 and upwards...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ages unknown ...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	145	103	248	...	...	...	13	...	13	26	16	42	100	84	184

DARENTH ASYLUM.

AGES.	The Admissions.						The Discharges.						The Deaths.		
	From Parishes and Unions.			From other Asylums of Board.			Recovered.			Removed, Improved, or otherwise.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 5 to 10 years
„ 10 to 15 „
„ 15 to 20 „	18	21	39	...	...	...	1	1	2	1	...	1
„ 20 to 30 „	6	10	16	...	...	...	3	...	3	8	5	13
„ 30 to 40 „	2	2	...	...	...	...	1	1	...	2	2
„ 40 to 50 „
„ 50 to 60 „	5	5
„ 60 to 70 „	1	1	4	2	6
„ 70 to 80 „	4	3	7
„ 80 to 90 „	1	...	1
„ 90 and upwards...	1	1
Ages unknown
Totals	24	33	57	...	...	...	4	3	7	18	18	36

of the Admissions, Discharges, and Deaths during the year 1897,
on the orders of Admission.

CATERHAM ASYLUM.

AGES.	The Admissions.						The Discharges.						The Deaths.		
	From Parishes and Unions.			From other Asylums of Board.			Recovered.			Removed, Improved, or otherwise.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 5 to 10 years ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 10 to 15 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 15 to 20 „ ...	17	5	22	...	...	...	...	...	...	2	...	2	3	1	4
„ 20 to 30 „ ...	10	8	18	...	...	...	...	1	1	5	1	6	6	2	8
„ 30 to 40 „ ...	10	9	19	...	...	...	1	...	1	4	...	4	6	5	11
„ 40 to 50 „ ...	12	6	18	...	...	...	...	1	1	1	3	4	6	9	15
„ 50 to 60 „ ...	11	9	20	...	...	...	...	1	1	...	1	1	14	12	26
„ 60 to 70 „ ...	14	9	23	...	...	...	...	...	...	1	...	1	17	16	33
„ 70 to 80 „ ...	10	11	21	...	...	...	...	1	1	...	...	...	13	19	32
„ 80 to 90 „ ...	...	1	1	...	...	...	...	...	...	...	...	...	1	8	9
„ 90 and upwards...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ages unknown ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	84	58	142	...	...	...	1	4	5	13	5	18	66	72	138

SUMMARY.

AGES.	The Admissions.						The Discharges.						The Deaths.		
	From Parishes and Unions.			From other Asylums of Board.			Recovered.			Removed, Improved, or otherwise.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 5 to 10 years ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 10 to 15 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 15 to 20 „ ...	35	16	51	18	21	39	...	...	...	5	3	8	9	3	12
„ 20 to 30 „ ..	40	21	61	6	10	16	1	1	2	15	6	21	34	13	47
„ 30 to 40 „ ...	36	24	60	...	2	2	5	...	5	11	5	16	19	14	33
„ 40 to 50 „ ...	38	23	61	...	...	...	5	1	6	4	7	11	16	20	36
„ 50 to 60 „ ...	24	29	53	...	...	...	1	1	2	3	1	4	36	30	66
„ 60 to 70 „ ...	31	23	54	...	...	...	2	...	2	4	2	6	33	35	73
„ 70 to 80 „ ...	21	21	42	...	...	...	...	1	1	1	...	1	26	44	70
„ 80 to 90 „ ...	1	4	5	...	...	...	...	...	...	...	...	...	6	14	20
„ 90 and upwards...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Ages unknown ...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Grand Totals...	229	161	390	24	33	57	14	4	18	43	24	67	184	174	358

ASYLUM STATISTICS.—TABLE XII.—*Showing the Departments*

DEPARTMENTS.	LEAVESDEN ASYLUM.	CATERHAM ASYLUM.	DARENTH ASYLUM.	SUMMARY MALES.
MALES.				
Blocks	127	165	60	352
Centre and Hall	19		4	30
Coaling	8	6	...	14
Stores	4	3	4	11
Kitchen	32	11	...	43
Bakehouse	9	1	4	14
Mess Room	3	7	1	11
Tailor's Shop	9	8	18	35
Shoemaker's Shop	6	8	16	30
Upholsterer's Shop	37	24	16	77
Painter's Shop ... ..	...	2	...	2
Grounds	70	46	54	170
Laundry	20	22	...	42
Farm ... ..	...	...	...	...
Gas House	5	5	...	10
Engine House	3	2	...	5
The Lodge ... ..	...	1	...	1
Attending to Earth Closets and Drains ... ..	...	3	...	3
Residence of Steward ... ..	...	1	...	1
Carpenters	3	..	...	3
Lunches ... ..	...	2	...	2
Drain Man ... ..	...	...	1	1
Total	355	324	178	857
Total number of Patients in Asylum	900	929	449	2,278

where Patients were employed on December 31st, 1897.

DEPARTMENTS.	LEAVESDEN ASYLUM.	CATERHAM ASYLUM.	DARENTH ASYLUM.	SUMMARY. FEMALES.
FEMALES.				
Laundry	36	29	30	95
Work Room	14	25	20	59
Helpers in Blocks	129	206	106	441
Needlework in Blocks	89	93	30	212
Centre	7	10	7	24
Mess Room	5	6	1	12
Kitchen ... ..	...	2	6	8
Medical Superintendent's Residence	...	2	...	2
Steward's Residence ... ..	...	1	...	1
Matron's Residence	1	1	...	2
Total	281	375	200	856
Total number of Patients in Asylum	1,099	1,050	595	2,744

ASYLUM STATISTICS.—TABLE XIII.—*Showing the Occupations previous to*

OCCUPATIONS.	LEAVESDEN ASYLUM.					CATERHAM ASYLUM.					DARENTH ASYLUM.					SUMMARY. — MALES.				
	NUMBERS.					NUMBERS.					NUMBERS.					NUMBERS.				
	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.
MALES.																				
Actor ... ..	...	..	...	1	1	...	...	...	...	...	...	...	...	...	...	...	..	...	...	1
Artist ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...
Barber ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...
Bootmakers	1	1	...	...	2	...	1	...	...	1	...	...	...	...	...	1	2	...	...	...
Brass-tip Maker ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Butcher	1	..	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Butler ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Cabinet Makers ...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...
Cabmen ... ..	...	1	2	...	3	...	..	1	...	1	...	...	...	...	...	...	1	3	...	...
Cardboard-box Mkrs.	2	...	...	..	2	..	...	...	..	...	...	...	...	...	...	2	...	...	...	...
Carmen ... ..	...	1	...	...	1	...	1	1	...	2	...	...	...	...	...	...	2	1	...	...
Carpenters ... ..	...	...	...	1	1	1	...	1	...	2	...	...	...	...	...	1	...	1	1	...
Carriage Trimmer ...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Cellarman ... ..	...	..	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Cheesemonger's Asst.	...	...	...	...	...	1	...	...	...	1	...	..	...	...	...	1	...	...	...	...
Clerks	1	2	...	1	4	1	1	...	...	2	...	...	...	...	...	2	3	...	...	1
Cook... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...
Decorator... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...
Diamond Setter ...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Dye Worker ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Errand Boys	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Fisherman	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
French Polisher ...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	..	1	...	...	...
Furrier ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...
Gilder ... ..	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Glazier ... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...
Grainer ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Gunmaker	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Harness Repairer ...	...	1	...	...	1	...	...	...	...	..	...	...	...	...	...	...	1	...	...	...
Hatter ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...
Hawkers	2	...	...	1	3	2	...	...	...	2	...	...	...	...	...	4	...	...	...	1
Horse Keepers ... ..	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	1	1	...	...
Jeweller... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Labourers... ..	16	6	4	4	30	7	8	3	...	18	...	...	...	...	...	23	14	7	4	4
Leather Case Maker	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Messengers	2	...	2	..	4	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...
Musician ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
No occupation... ..	27	...	3	3	33	...	...	...	...	...	24	...	...	...	24	51	...	3	3	...
Not known ... ..	...	1	...	10	11	27	1	2	...	30	...	...	...	...	...	27	2	2	10	4
Painters	2	1	...	1	4	...	...	1	...	1	...	...	...	...	...	2	1	1	1	...
Paper Carrier... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Paperhanger ... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...
Pearl Cutter ... ..	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...
Piano Maker	1	..	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Plasterer ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Policeman ... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Polishers (French)...	1	1	..	1	3	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1
Porters	5	1	...	...	6	1	...	...	...	1	...	...	...	...	...	6	1	...	...	...
Printers	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Rag Sorter ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Sailor ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Schoolmaster ... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Shipbuilder ... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Shoemakers ... ..	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Carried forward ...	70	20	15	28	133	46	19	14	..	79	24	...	...	...	24	140	39	29	28	2

admission, and condition as to Marriage of the Patients admitted during the year 1897.

OCCUPATIONS.	LEAVESDEN ASYLUM.					CATERHAM ASYLUM.					DARENTH ASYLUM.					SUMMARY.				
																MALES.				
	NUMBERS.					NUMBERS.					NUMBERS.					NUMBERS.				
	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.	Single.	Married.	Widowed.	Unknown.	Total.
MALES—continued.																				
Brought forward ...	70	20	15	28	133	46	19	14	...	79	24	...	...	...	24	140	39	29	28	236
Shoeblack... ..	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Slater ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Soldier	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Stableman ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Stevedore ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Sweep ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Tailors ... ..	...	1	...	1	2	1	1	...	...	2	...	...	...	...	...	...	...	1	...	1
Waiters	1	...	1	1	3	...	...	...	...	...	...	...	...	...	...	1	...	1	1	3
Wood Carver ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Wood Choppers ...	1	1	...	...	2	1	...	...	...	1	...	...	...	...	...	2	1	...	...	3
Total ...	74	22	18	31	145	48	20	16	...	84	24	...	...	...	24	146	42	34	31	253
FEMALES.																FEMALES.				
Actress ... ..	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Artificial Flower Makers ...	1	...	...	...	1	...	...	1	...	1	...	...	...	...	...	1	...	1	...	2
Bootwork	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Carpet Sewer ... ..	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Charwomen	1	...	3	...	4	...	1	5	1	7	...	...	...	...	...	1	1	8	1	11
Cooks ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Dressmakers	1	1	...	1	3	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3
Housekeepers ... ..	...	1	...	1	2	...	5	...	...	5	...	...	...	...	...	...	6	...	1	7
Laundresses	1	1	1	1	4	...	...	1	...	1	...	...	...	...	...	1	1	2	1	5
Mantle Maker ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Monthly Nurse ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Needlewomen	2	...	1	3	6	1	...	1	...	2	...	...	...	...	...	3	...	2	3	8
No occupation... ..	19	12	11	5	47	...	...	...	...	...	33	...	...	...	33	52	12	11	5	80
Nurses ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Sempstresses	1	...	1	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2	...	3
Servants	11	1	1	6	19	4	...	...	...	4	...	...	...	...	...	15	1	1	6	23
Shirt Worker ... ..	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1
Tailoresses	1	1	...	...	2	...	1	...	...	1	...	...	...	...	...	1	2	...	...	3
Unknown	1	3	...	5	9	17	8	7	...	32	...	...	...	...	...	18	11	7	5	41
Total ...	40	21	19	23	103	22	15	20	1	58	33	...	...	...	33	95	36	39	24	194

No. 4.

DARENTH SCHOOLS AND PAVILIONS.

NEAR DARTFORD, KENT,
January, 1898.

(For Statistics, see pp. 143 to 153.)

Statistics. On January 1st, 1897, there were in the schools and pavilions 977 patients, viz., 636 males and 341 females.

	Males.	Females.	Total.
Admitted during the year 1897	76	56	132
Discharged during the year	49	53	102
Died during the year	25	16	41
Remaining December 31st, 1897	636	341	977

During the year there have been admitted 76 males and 56 females, total 132. Of this number, 26 are of the helpless crippled class, removed from any possibility of remedial benefit. Forty-three are of the “fair grade” class, and will derive distinct benefit from the special methods of training. Fifty-six of a lower grade are capable of improvement in a lesser degree.

The following extracts from the annual reports of the medical superintendents indicate the character of the admissions during the past ten years:—

The late Medical Superintendent (Dr. Beach) reported in—

1887.—“Many of the cases admitted during the year have unfortunately not been of a character to admit of much improvement. . . . On the girls’ side only 23 of our patients can be employed.”

1890.—“More patients, both males and females, would have been employed, but, owing to the very large number of feeble, epileptic, and helpless paralysed cases here, it is impossible to increase the number.”

1891.—“Few cases sent, I regret to say, are capable of much improvement, and the remark that I made in my report some years ago that the institution was becoming every year more like a hospital than a training school applies with as much force as ever. Very few of the cases admitted were capable of industrial training.”

1892.—“The large number of epileptic and helpless patients sent for admission have for many years largely outnumbered the able-bodied cases. Very few of the cases admitted during the year were capable of industrial training.”

In my reports I remarked—

1893.—“That a critical review of the patients showed that out of a population of 950 there are 512 totally helpless—can neither wash, dress, nor feed themselves—200 of these are crippled. There are 300 epileptics, requiring constant care and continuous supervision by night and day. . . . This is an unfavourable material from which to effect cures.”

1894.—“Of the patients presented for admission, the number of helpless and incurable preponderates over the healthy and recoverable. The accumulation of these helpless and hopeless cases tends to increase at a greater rate than formerly.”

1895.—“It is matter for regret that this institution should be in danger of becoming converted into a huge custodial institution for helpless crippled and incurable adult or semi-adult patients.”

To the adult asylum have been transferred during the year 24 male and 33 female patients above the age of 16.

During the 23 years the institution has been in existence, there have been discharged to friends—

As “recovered”	...	...	...	107
As “improved”	...	...	...	274

Not all of those discharged “recovered” would come under the category of idiot or imbecile; they are rather those on the border line—of unstable mental equilibrium—easily unhinged when exposed to adverse influences. Residence here, with the attendant advantages, restores these subjects to their average physical and mental condition.

With regard to those discharged “improved,” experience goes to show that those children who become at all capable of engaging in domestic or industrial pursuits are removed by their friends, who desire to have their help in their homes or in their work, leaving in the institution a large number of the indifferent, the crippled, and the epileptic, incapable of rendering efficient service.

The death rate for the past year is again low, viz., 4·10 per cent. on the average number resident.

Causation. Of the 132 children admitted during the year, the family history is well ascertained and clear in 104 cases, and demonstrates that alcoholic intemperance of parents and hereditary predisposition are the main factors in the production of idiocy and imbecility.

CAUSES.	Patients admitted.		
	Boys.	Girls.	Total.
1. Excessive alcoholic intemperance in one or both parents (complicated with suicide, cerebral palsy, delirium tremens, and alcoholic dementia)	10	9	19
2. Marked phthisical (tubercular) disease in one or both parents (complicated with Bright’s disease (one case), feeble mindedness, and excessive fecundity (22 births in one family, of whom seven died and one was an idiot)	13	9	22
3. Definite cerebral disease (epilepsy, imbecility, paralysis, insanity, &c.) in one or both parents	12	20	32
4. Delicate and feeble health of mother, often with difficult labour (three boys and four girls), and asphyxia of child (four boys and one girl)	9	8	17
5. Fright or worry and anxiety of mother during gestation	2	4	6
6. Injury or accident to child... ..	6	2	8
7. Causes doubtful (syphilis or alcohol)	3	2	5
	55	54	109

**Epidemic
or Zymotic
Disease.**

During the early part of the year there occurred some 20 cases of
rötheln or epidemic roseola of a mild character.

	*	*	*	*	*
Staff.					
	Average daily number of patients resident during the year				
	977·6				
	Average daily number of staff employed...				
	... .. 207				
	Viz. :—Medical staff 2				
	Nursing staff 116				
	Teaching staff 11				
	*Other staff (this includes 13 scrubbers) 78				
	<hr/>				
	207				
	<hr/>				

(Signed) F. H. WALMSLEY, M.D.,
Medical Superintendent.

* In addition to this number, 78, there were employed during the year 18 men in the repainting and cleansing works and in levelling a portion of the recreation ground.

IMBECILITY STATISTICS—DARENTH SCHOOLS AND PAVILIONS.

TABLE I.—*Showing the Admissions, Re-admissions, Discharges, and Deaths during the Year 1897.*

							Males.	Females.	Total.
In the Asylum, January 1st, 1897							634	354	988
							Males.	Females.	Total.
Admitted for the first time during the year (direct from the several Parishes & Unions)							76	55	131
Re-admitted during the year							...	1	1
Admitted from other Asylums of Board							...	...	...
							76	56	132
Total under care during the year							710	410	1,120
							Males.	Females.	Total.
Discharged—									
Recovered							1	5	6
Improved							20	12	32
Not improved							4	3	7
To other Asylums of Board							24	33	57
Died...							25	16	41
Total discharged (for various reasons) and died during the year							74	69	143
Remaining in the Asylum, December 31st, 1897							636	341	977
Average numbers resident during the year							637·0	340·6	977·6
Highest number resident on any one day							633	354	987
Lowest number resident on any one day							634	329	963

TABLE II.—*Showing the Admissions, Re-admissions, and Discharges from the opening of the Asylum to the present date, December 31st, 1897.*

							Males.	Females.	Total.	Males.	Females.	Total.
Admitted during the period of 23 years (direct from the several Parishes & Unions)							1,704	1,131	2,835	1,988	1,385	3,373
Re-admissions							54	43	97			
Admitted from other Asylums of Board							230	211	441			
Total of Cases Admitted												
							Males.	Females.	Total.			
Discharged—												
Recovered							50	57	107			
Improved							159	115	274			
Not improved							161	82	243			
To other Asylums of Board							528	460	988			
Died							454	330	784			
Total discharged and died during the 23 years										1,352	1,044	2,396
Remaining December 31st, 1897										636	341	977
Average numbers resident during the 23 years										389·9	251·9	641·8

TABLE III.—Showing the Admissions, Discharges, and Deaths, with the Mean Annual Mortality and proportion of Recoveries per cent. of the Admissions for the year 1888, and for each subsequent year.

Year.	Admitted.						Discharged.												Died.			Remaining December 31st in each year.						Average Numbers Resident.						Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Numbers Resident.											
	From other Asylums of Board.						Total.						Re-covered.			Im-proved.			Not Im-proved.			To other Asylums of Board.			Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.									
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.																Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1888 ...	74	40	114	21	40	61	95	80	175	2	...	2	7	5	12	14	8	22	124	46	170	29	12	41	341	221	562	417.3	217.6	635.4	2.10	...	1.14	6.94	5.51	6.45												
1889 ...	94	62	156	...	...	...	94	62	156	1	1	2	3	4	7	5	3	8	26	9	35	9	10	19	391	256	647	365.5	249.3	614.8	1.06	1.62	1.30	2.46	4.04	3.07									
1890 ...	96	62	158	52	42	94	148	104	252	2	1	3	8	3	11	13	9	22	...	...	...	12	10	22	504	337	841	466.4	311.6	777.8	1.35	0.95	1.15	2.57	3.24	2.82									
1891 ...	108	64	172	...	...	...	108	64	172	...	1	1	10	6	16	11	7	18	...	...	...	17	24	41	574	363	937	534.0	351.0	885.0	...	0.01	0.01	3.18	6.83	4.63						
1892 ...	77	58	135	...	...	...	77	58	135	7	3	10	3	...	3	5	3	8	11	31	42	21	15	36	604	369	973	590.4	369.4	959.8	9.99	5.17	7.40	3.55	4.06	3.75									
1893 ...	88	72	160	...	...	...	88	72	160	4	7	11	6	11	17	11	6	17	45	44	89	40	23	63	590	357	947	592.5	354.9	946.1	4.54	9.72	6.87	6.70	6.40	6.60									
1894 ...	75	51	126	2	...	2	77	51	128	1	3	4	1	2	3	7	2	9	38	13	51	25	20	45	595	368	963	590.9	356.2	947.1	1.20	6.00	3.12	4.20	5.75	4.70												
1895 ...	96	56	152	1	1	2	97	57	154	10	3	13	10	2	12	5	3	8	25	45	70	12	12	24	630	360	990	607.7	365.4	973.1	10.52	5.26	8.44	1.90	3.33	2.42												
1896 ...	83	57	140	...	...	...	83	57	140	5	9	14	16	9	25	6	4	10	27	29	56	25	12	37	634	354	988	629.1	350.8	979.9	6.02	15.78	10.0	3.97	3.41	3.77									
1897 ...	76	56	132	...	...	...	76	56	132	1	5	6	20	12	32	4	3	7	24	33	57	25	16	41	636	341	977	637.0	340.6	977.6	1.31	5.31	6.0	4.09	4.11	4.10									

TABLE IV.—*Classifying, under the usual denominations of Mental Disease, the Mental Condition of the Patients admitted during the Year 1897 direct from the Parishes and Unions.*

MENTAL DISEASES.	Males.	Females.	Total.
Idiocy	19	11	30
Idiocy and Epilepsy	13	10	23
Imbecility	35	26	61
Imbecility and Epilepsy	8	4	12
Of Weak Mind	1	5	6
Totals	76	56	132

TABLE V.—*Classifying, under the usual denominations of Mental Disease, the Mental Condition of the Patients resident in the Asylum on the December 31st, 1897.*

MENTAL DISEASES.	Males.	Females.	Total.
Idiocy	125	108	233
Idiocy and Epilepsy	166	99	265
Imbecility	276	98	374
Imbecility and Epilepsy	69	36	105
Totals	636	341	977

TABLE VII.—*Showing the Causes of Death during the year 1897, together with the Ages of the Decedents, calculated from the Ages stated on the Orders of Admission.*

CAUSES OF DEATH.	Under 16		16.		17.		18.		19.		20 to 29.		TOTAL.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
CEREBRAL OR SPINAL DISEASES—															
Epilepsy	11	8	2	...	...	...	...	...	...	...	2	1	15	9	24
Hydrocephalus (Chronic)	...	...	...	1	...	...	...	...	..	...	...	...	...	1	1
Tumour of Cerebellum ... ..	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Progressive Cerebral Sclerosis ...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Meningo-Encephalitis (Sub-acute)	1	...	...	...	...	..	...	...	...	...	...	...	1	...	1
THORACIC DISEASE—															
Bronchitis ... ..	...	2	...	...	1	...	...	...	...	...	...	...	1	2	3
Tuberculosis	4	2	...	...	1	...	...	...	...	...	1	...	6	2	8
Cardiac Disease ... ..	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1
ABDOMINAL DISEASE—															
Liver (Cystis of Hydatid) ... ..	...	1	...	...	...	...	...	...	...	...	...	...	..	1	1
Totals	17	14	2	1	2	...	...	...	1	...	3	1	25	16	41

TABLE VIII.—*Showing the length of Residence in those Discharged Recovered, and in those who have Died during the year 1897.*

LENGTH OF RESIDENCE.	RECOVERED.			DIED.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 Month...
From 1 to 3 Months	1	1	1	...	1
„ 3 „ 6 „	1	1	...	...	...
„ 6 „ 9 „	1	1	...	1	1
„ 9 „ 12 „ ..	1	2	3	...	...	...
„ 1 „ 2 Years	9	6	15
„ 2 „ 3 „	4	2	6
„ 3 „ 5 „	4	3	7
„ 5 „ 7 „	3	1	4
„ 7 „ 10 „	2	2
„ 10 „ 12 „	2	1	3
„ 12 „ 14 „	1	...	1
„ 14 „ 16 „	1	...	1
„ 16 „ 18 „
„ 18 „ 20 „
Totals	1	5	6	25	16	41

TABLE IX.—Showing the Ages of Patients resident in the Asylum on December 31st, 1893, 1894, 1895, 1896, and 1897; calculated from the Ages stated on the Orders of Admission.

Years ending December 31st.	Under 16.		16.		17.		18.		19.		20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		TOTALS.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1893	590	357	947
1894	595	368	963
1895	630	360	990
1896	634	354	988
1897	636	341	977

TABLE X.—*Showing the Ages of the Admissions, Discharges, and Deaths during the Year 1897, calculated from the Ages stated on the Orders of Admission.*

AGES.	THE ADMISSIONS.						THE DISCHARGES.						THE DEATHS.		
	From Parishes and Unions.			From other Asylums of the Board.			Recovered.			Removed, Improved, or Otherwise.					
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 5 to 10 years	41	31	72	...	...	...	...	2	2	5	7	12	...	...	...
„ 10 „ 15 „	35	25	60	...	...	...	1	3	4	7	7	14	18	13	31
„ 15 „ 20 „	...	...	...	...	...	...	...	...	...	29	21	50	4	2	6
„ 20 „ 30 „	...	...	...	...	...	...	...	...	...	7	11	18	3	1	4
„ 30 „ 40 „	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...
„ 40 „ 50 „	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 50 „ 60 „	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	76	56	132	...	...	...	1	5	6	48	48	96	25	16	41

TABLE XI.—*Showing the Departments where Patients were employed on December 31st, 1897.*

MALES.								FEMALES.							
Departments.							Numbers Employed.	Departments.							Numbers Employed.
Blocks							73	Laundry							17
Stores							1	Work Room							3
Kitchen							3	Helpers in Blocks							31
Tailors' Shop							30	Needlework in Blocks... ..							3
Shoemakers' Shop							32	Med. Superintendent's Residence							1
Grounds							23	Helpers in School Room							3
Surgery							1								
Mat Making							4								
Total							167	Total							58
Total No. of Patients in Asylum							636	Total No. of Patients in Asylum							341

DARENTH SCHOOLS.—TABLE XII.—*Time Table.*

MORNING CLASSES.					
		10.0 to 10.30.	10.30 to 11.15.	11.15 to 11.45.	11.45 to 12.0.
MONDAY	1 2 3 4	Reading Pricking Cubes Knot and Loop	Paper Cutting Colour Work Cane Weaving Clock and Colour	Knot and Loop Addition and Sub. Reading Stick Laying	Marching ,, Kinder Garten Games
TUESDAY	1 2 3 4	Natural History Coins and Shop Pricking Paper Plaiting	Writing Paper Cutting Paper Folding Stick Laying	Paper Folding Pricking Number Lesson Counting	} Singing and Repeating }
WEDNESDAY ...	1 2 3 4	Coins and Shop Natural History Writing Knot and Loop	Paper Plaiting Drawing Knot and Loop Cane Weaving	Reading Spelling Object Lesson Letters	Reciting ,, Drilling ,, }
THURSDAY	1 2 3 4	Object Lesson Figures Counting, &c. Paper Folding	Writing Knot and Loop Paper Plaiting Drawing	Knot and Loop Reading Personal Appear. Object Lesson	Tables ,, Games ,,
FRIDAY	1 2 3 4	Joint and Lath Addition and Sub. Reading Colour and Clock	Drawing Paper Folding Colour Work Writing	Spelling Colour and Clock Stick Laying Coins, &c.	Drilling Reciting Counting ,,
SATURDAY	1 2 3 4	Reading Object Lesson Addition and Sub. Letters	Colour Work Paper Plaiting Knot and Loop Paper Folding	Pricking Reading Writing Natural History	} Singing and Repeating }

DARENTH SCHOOLS.—TABLE XII. (continued)—Time Table.

AFTERNOON CLASSES.				
2.0 to 2.30.	2.30 to 3.15.	3.15 to 3.45.	3.45 to 4.0	10.0 to 11.45. 2.0 to 3.40.
Spelling Knot and Loop Pricking Counting	Cane Weaving Drawing Colour Work Cane Weaving	Pricking Reading Spelling Pricking	Tables ,, Reciting ,,	Sewing Knitting Kindergarten, &c. Basket Making
Dictation Addition and Sub. Reading Stick Laying	Paper Cutting Cane Weaving Paper Folding Pricking	Reading Writing Drawing Letters	Drilling Reciting Tables ,,	Sewing Knitting Kindergarten, &c. Basket Making
...	HALF-HOLIDAY.		...	Sewing Knitting Kindergarten, &c. Basket Making
Cane Weaving Dictation Cubes Writing	Addition and Sub. Paper Plaiting Cane Weaving Drawing	Transcribing Addition and Sub. Paper Plaiting Knot and Loop	Singing and Repeating	Sewing Knitting Kindergarten, &c. Basket Making
Reading Stick Laying Colour and Clock Drawing	Drawing Paper Plaiting Knot and Loop Stick Laying	Paper Folding Reading Stick Laying Number, &c.	Marching and Singing	Sewing, &c. ,, ,, Basket Making
...	HALF-HOLIDAY.		...	Sewing, &c. ,, ,, Basket Making

TABLE XII. (*continued*)—*Time Table.*

MORNING CLASSES.				
		10.0 to 10.30	10.30 to 11.10.	11.10 to 11.35.
MONDAY	5	Cubes	Paper Folding	Marching and Drilling
TUESDAY	5	Colour and Clock	Knot and Loop	Reciting
WEDNESDAY ...	5	Drawing	Colour Lesson	Kindergarten Games
THURSDAY	5	Writing	Cane Weaving	Singing
FRIDAY	5	Natural History	Pictures, &c.	Marching and Singing
SATURDAY	5	German Target	Beads	Object Lesson
		10.0 to 10.30.	10.30 to 11.0.	11.0 to 11.10.
MONDAY	6	Beads and Reels	Pictures	Singing
TUESDAY	6	Boards, Cushions, & Pins	Paper Plaiting	Drilling
WEDNESDAY ...	6	Letters	Toys	Games
THURSDAY	6	Cubes	Beads and Reels	Marching
FRIDAY	6	Colour Lesson	Shredding	Singing
SATURDAY	6	Personal Appearance	Pictures	Games

TABLE XII. (continued)—Time Table.

AFTERNOON CLASSES.			
2.0 to 2.30.	2.30 to 3.10.	3.10 to 3.30.	Sewing, Knitting, Embroidery, and Modelling are Special Lessons.
Stick Laying	Cane Weaving	Singing and Marching	
Letters	Paper Plaiting.	Ball Games	
...	HALF-HOLIDAY.	...	
Cubes	Paper Folding	Drilling	
Drawing	Cushions and Beads	Reciting	
...	HALF-HOLIDAY.	...	
2.0 to 2.30.	2.30 to 3.0.	3.0 to 3.10.	Sewing, Knitting, Embroidery, and Modelling are Special Lessons.
Cubes	Shredding	Games	
Colour Lesson	Pictures	Singing	
...	HALF-HOLIDAY.	...	
Toys, &c.	Paper Plaiting	German Target	
Stick Laying	Pins, Cushions, Beads	Drilling	
...	HALF-HOLIDAY.	...	

MEDICAL SUPPLEMENT

TO THE

REPORT OF THE STATISTICAL COMMITTEE

FOR THE

YEAR 1897.

EDITED BY

F. FOORD CAIGER, M.D. LOND.,

AND

E. W. GOODALL, M.D. LOND.

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COMPLICATIONS AND CO-EXISTENT INFECTIOUS DISEASES, 1897.

Tables I. to III., which are compiled from the returns sent in from the different hospitals, show the number and percentage incidence of the various complications which arose among the scarlet fever, diphtheria, and enteric fever cases completed during the year 1897.

Table IV. gives the number of cases in which two separate infectious diseases were co-existent at the time of the patient's admission into hospital.

TABLE I.—*Showing incidence of Complications amongst 15,241 cases of Scarlet Fever completed during 1897.*

COMPLICATION.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	South-Eastern.	Brook.	Park.	Gore Farm.	Northern.	Total.	Percentage Incidence.
Otitis	229	294	245	258	177	237	178	391	6	89	90	2,194	14.39
Albuminuria	51	410	120	194	158	132	77	134	9	41	27	1,353	8.87
Adenitis (of convalescence)	81	108	78	75	160	91	58	139	1	34	28	853	5.59
Suppurative Adenitis (included)	27	7	30	21	13	29	19	38	...	12	6	202	1.32
Rheumatism	35	70	34	91	76	49	59	59	...	23	11	507	3.32
Nephritis	52	97	31	53	24	52	44	55	1	7	12	428	2.80
Tonsillitis (of convalescence)	9	36	15	26	63	18	8	35	...	133	25	368	2.41
Stomatitis	11	26	4	29	22	14	13	23	...	81	102	325	2.13
Broncho-pneumonia	11	23	29	35	16	33	23	20	5	12	2	209	1.37
Bronchitis	25	38	7	28	21	11	9	32	...	17	9	197	1.29
Abscess (other than Mastoid or Glandular)	25	16	14	15	10	25	17	42	2	12	3	131	1.18
Mastoid Abscess	17	19	9	11	8	15	12	14	...	6	7	118	.77
Ophthalmia	16	17	...	...	17	11	5	26	3	5	17	117	.76
Relapse of Disease	4	12	3	6	6	8	15	11	...	21	25	111	.72
Pneumonia	8	7	3	6	4	5	13	17	...	2	6	71	.45
Endocarditis	4	9	...	8	...	4	10	29	...	16	3	74	.48
Cervical Cellulitis	4	4	5	1	2	5	8	9	1	1	...	40	.26
Laryngitis	16	...	...	1	6	3	3	4	1	3	...	37	.24
Pleurisy	6	1	2	1	1	2	4	7	...	...	...	24	.15
Corneal Ulcer ... ..	...	3	2	1	1	11	...	1	1	3	1	24	.15
Pericarditis	1	...	1	1	...	2	3	2	...	4	3	17	.12
Empyema	1	2	3	1	2	2	4	...	...	...	2	17	.12
Pyæmia	2	7	1	1	...	2	...	1	...	...	...	14	.09
Meningitis	3	2	5	...	...	2	...	1	...	...	1	14	.09
Diphtheria	31	29	34	48	31	91	34	56	...	175	267	796	5.22
Chickenpox	35	36	61	20	18	...	52	32	...	54	224	532	3.49
Measles	36	13	44	2	1	7	15	6	2	9	...	135	.88
Rötheln	10	23	9	2	3	...	20	2	...	9	17	95	.62
Whooping Cough ... ..	...	6	2	8	15	6	5	31	...	4	13	90	.59
Mumps... ..	...	...	...	...	...	...	...	1	...	15	5	21	.14
Erysipelas	2	1	2	1	...	...	...	2	...	1	...	9	.05
Tuberculosis ... ..	...	2	...	...	...	...	...	...	...	4	...	6	.03
Enteric Fever ... ..	...	...	...	...	...	...	...	...	...	...	2	2	.01

NOTE.—In the above table for the year 1896, in the column referring to the South-Eastern Hospital, three cases of erysipelas were in error recorded as enteric fever.

From the above record it may be affirmed generally that the numerical incidence of each of the chief complications of scarlet fever has been closely similar during 1897 to that recorded in recent years.

It should be noted that the cases returned as “Albuminuria” comprise those in which albumin was detected in the urine simply, without any other symptoms pointing to affection of the kidneys. If, to the cases returned as simple albuminuria, there be added those which are returned as “Nephritis,” the percentage of cases showing renal affection comes out at 11.67. This is slightly in excess of former records. So, too, the cases returned under the heading “Adenitis” comprise those in which the gland inflammation was limited to the submaxillary or submastoid

region, and which was not directly connected, as far as could be determined, with the presence at the time of any primary lesion of the faucial structures.

Cases returned as “Mastoid Abscess” include all those in which suppuration occurred in the mastoid region, whether superficial to the bone, sub-periosteal, or within the mastoid antrum.

Under the term “Relapse of Disease” are included those cases alone in which the reappearance of the symptoms was sufficiently distinctive as to warrant a diagnosis of scarlet fever. This definition of “relapse,” moreover, holds good in respect to the two following tables:—

TABLE II.—Showing incidence of Complications amongst 5,493 cases of Diphtheria completed during 1897.

COMPLICATION.		Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	South-Eastern.	Brook.	Park.	Gore Farm.	Northern.	Total.	Percentage Incidence.
Specific Infectious Diseases.	Albuminuria ..	372	Not receiving cases of Diphtheria.	434	333	207	289	403	260	2	No admissions till December.	16	2,316	42.16
	Paralysis ...	161		117	96	106	115	332	172	..		30	1,129	20.55
	Relapse of Disease	10		2	22	15	13	27	17	..		4	110	2.00
	Broncho-pneumonia	14		16	16	15	25	14	6	1		1	108	2.14
	Pneumonia ...	4		..	5	1	1	6	6	..		1	24	.45
	Nephritis ...	..		..	1	4	8	2	3	..		1	19	.34
	Scarlet Fever	36		35	45	37	98	64	15	..		54	384	6.99
	Chickenpox	4		6	14	..	..	4	11	..		4	43	.78
	Measles ...	4		18	..	..	2	3	2	..		..	29	.52
	Whooping Cough	2		4	3	3	..	..	1	..		2	15	.27
	Rötheln ...	4		..	..	..	..	..	2	..		..	6	.10
	Tuberculosis	..		..	..	..	..	..	1	..		..	1	.01

A closely similar incidence of complications is also noticeable among the cases of diphtheria completed during the year 1897.

The affections comprised in the foregoing table are recognised complications of the disease, and do not include those which are known to be dependent upon any particular form of treatment.

The large proportion of the cases were treated with antitoxin, but the special complications resulting from its employment are not given. A record of their incidence simply without an accompanying statement showing how much serum each case received would be valueless.

TABLE III.—Showing incidence of Complications amongst 666 cases of Enteric Fever completed during 1897.

COMPLICATION.		Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	South-Eastern.	Brook.	Park.	Gore Farm.	Northern.	Total.	Percentage Incidence.
Specific Infectious Diseases	Relapse of Disease ...	15	Not receiving Enteric Fever.	15	13	20	Not receiving Enteric Fever.	13	11	Not receiving Enteric Fever.	Not receiving Enteric Fever.	Not receiving Enteric Fever.	87	13.06
	Hæmorrhage ..	6		14	6	14		20	6				66	9.90
	Abscesses ...	2		14	..	6		8	12				32	4.80
	Perforation ...	5		3	2	4		4	3				21	3.10
	Pneumonia ...	..		6	3	2		3	2				16	2.40
	Peritonitis (non-perforative)	2		..	2	1		4	4				13	1.90
	Periostitis ...	1		1	2	1		4	1				10	1.50
	Pleuritis ...	2		..	1	..		7	..				10	1.50
	Phlebitis ...	1		2	3	1		..	1				3	1.20
	Dementia ...	1		..	..	3		1	2				7	1.05
	Broncho-pneumonia ..	..		2	..	..		1	3				6	.90
	Parotitis ...	..		1	..	..		2	1				4	.60
	Scarlet Fever ...	..		4	1	..		..	1				6	.90
	Diphtheria ...	..		..	..	..		..	2				2	.30

The above table shows that the incidence of the more important complications

of enteric fever was slightly higher during the year 1897 than it has been in recent years, but in other respects it presents nothing worthy of remark.

TABLE IV.—*Showing the number of Cases in which two separate Infectious Diseases were co-existent at the time of admission into the Acute Fever Hospitals during 1897.*

CO-EXISTENT INFECTIONS.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	South-Eastern.	Brook.	Park.	Total.
Scarlet Fever and Diphtheria ...	36	5	17	51	15	85	37	40	3	289
Scarlet Fever and Chickenpox ...	7	15	14	6	7	19	14	15	...	97
Scarlet Fever and Whooping Cough ...	8	8	7	17	12	5	7	11	...	75
Scarlet Fever and Measles ...	3	1	1	...	2	2	9	9	1	28
Scarlet Fever and Tuberculosis ...	3	5	...	1	6	...	6	4	...	25
Scarlet Fever and R��theln ...	1	4	...	...	1	2	...	...	1	9
Scarlet Fever and Enteric Fever ...	1	...	...	...	3	...	2	2	...	8
Diphtheria and Measles ...	6	...	1	2	1	...	13	3	...	26
Diphtheria and Chickenpox ...	6	...	...	2	...	5	2	2	...	17
Diphtheria and Whooping Cough ...	2	...	3	1	...	1	...	5	...	12
Diphtheria and Tuberculosis ...	1	...	...	1	...	1	3	...	...	6
Diphtheria and Enteric Fever ...	...	...	...	...	...	...	2	1	...	3
Diphtheria and R��theln ...	...	...	...	...	...	...	...	1	...	1
Total ... ..	...	...	...	...	...	...	...	...	...	596 = { 2.78 per cent.

It is seen from the above table that among 21,400 cases suffering from either scarlet fever, diphtheria, or enteric fever on admission, in 596, or 2.78 per cent., a second disease was also present. The percentage of cases showing co-existent diseases in the previous year was 2.9 per cent. For the two years 1896 and 1897, the incidence among 41,483 cases was 2.8 per cent. As has been the case in all previous records, the combination most frequently present was that of scarlet fever and diphtheria, their concurrence being nearly three times as frequent as that of any other two infectious diseases.

The adoption of the bacteriological test has rendered the diagnosis much more secure in respect to cases in which the presence of diphtheria was suspected.

F. F. C.

POST-SCARLATINAL DIPHTHERIA, 1897.

The following ten tables give the details of the cases of post-scarlatinal diphtheria occurring at the various hospitals during the year 1897. As in the tables given last year, the cases tabulated exclude those remaining in hospital at the end of the year, but include those remaining from the previous year. There were no cases at the Park Hospital. A column has been added to each table for the purpose of showing in which cases the antitoxin treatment was employed.

EASTERN HOSPITAL.—TABLE I.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	J. B.	M	3	St. David	Nov. 9/96	Nov. 24/96	12	Faucial & Laryngeal	R	...	Antitoxin.
2	J. S.	M	9	Honour...	Oct. 12 "	" 25 "	29	Faucial ...	R	...	No antitoxin.
3	A. Y.	M	7	Honour...	Nov. 7 "	Dec. 3 "	20	" ...	R	...	Antitoxin.
4	L. M.	M	8	Honour...	Dec. 5 "	Jan. 1/97	25	" ...	R	...	"
5	M. D.	F	4	Truth ...	" 16 "	" 4 "	19	" ...	...	D	No antitoxin.
6	D. T.	M	2	Honour...	Jan. 5/97	" 28 "	18	" ...	R	...	Antitoxin.
7	R. M.	F	5	Truth ...	Dec. 8/96	Feb. 2 "	54	Faucial & Laryngeal	R	...	"
8	L. T.	F	8	Truth ...	Jan. 6/97	" 3 "	28	Faucial ...	R	...	No antitoxin.
9	W. A.	M	9	Honour...	" 23 "	" 13 "	21	Faucial & Laryngeal	R	...	Antitoxin.
10	M. H.	F	4	Truth ...	Feb. 2 "	" 18 "	15	Faucial ...	...	D	No antitoxin.
11	L. E.	M	4	Courage	Dec. 10/96	" 20 "	69	" ...	R	...	Antitoxin.
12	E. C.	F	3	Courage	" 8 "	" 21 "	72	" ...	R	...	"
13	R. S.	F	1	Fortitude	Feb. 14/97	" 24 "	9	" ...	R	...	"
14	H. D.	M	3	Courage	Dec. 12/96	" 26 "	73	Faucial & Laryngeal	R	...	"
15	H. M.	M	4	Truth ...	Jan. 25/97	Mar. 1 "	32	Faucial ...	R	...	No antitoxin.
16	B. L.	M	12	Mercy ...	Feb. 4 "	" 2 "	24	" ...	R	...	Antitoxin.
17	N. S.	F	10	Fortitude	" 12 "	" 3 "	17	" ...	R	...	"
18	B. C.	M	12	Mercy ...	Dec. 24/96	" 3 "	44	Faucial and Nasal...	R	...	"
19	A. D.	M	5	Hut ...	Jan. 5/97	" 6 "	60	Nasal ...	R	...	"
20	W. S.	M	5	Honour ...	Feb. 10 "	" 8 "	25	Faucial ...	R	...	"
21	R. L.	M	10	Honour...	" 26 "	" 14 "	17	" ...	R	...	"
22	A. C.	F	7	Courage	Dec. 30/96	Apr. 1 "	91	" ...	R	...	No antitoxin.
23	A. A.	M	7	Honour...	Jan. 21/97	" 6 "	73	" ...	R	...	Antitoxin.
24	S. F.	M	15	Mercy ...	Mar. 25 "	" 9 "	14	" ...	R	...	"
25	F. C.	F	2	Joy ...	Apr. 2 "	" 16 "	12	Faucial & Laryngeal	...	D	"
26	G. C.	M	14	Honour..	May 25 "	June 10 "	14	Faucial ...	R	...	"
27	H. F.	M	5	Hope ...	" 18 "	" 15 "	29	" ...	R	...	"
28	R. E.	F	8	Hope ...	June 4 "	" 21 "	15	Faucial and Nasal..	R	...	"
29	S. K.	M	6	Honour...	May 31 "	" 25 "	23	Faucial ...	R	...	"
30	W. L.	M	9	Mercy ...	" 18 "	" 29 "	40	Nasal ...	R	...	"
31	M. D.	F	6	Patience	" 24 "	July 5 "	38	Faucial ...	R	...	"

NOTE.—In all three fatal cases death was due to measles.

NORTH-EASTERN HOSPITAL.—TABLE II.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	E. W.	F	4	10	Nov. 23/96	Dec. 5/96	10	Faucial ...	R	...	Antitoxin.
2	H. B.	F	4½	4	" 7 "	" 27 "	49	" ...	R	...	"
3	J. W.	M	7	15	" 2 "	" 27 "	37	Faucial & Laryngeal	R	...	"
4	A. G.	M	2	3	Dec. 26 "	Feb. 3/97	38	Faucial ...	R	...	"
5	D. J.	F	5	2	" 2 "	" 12 "	70	" ...	...	D	"
6	G. A.	M	2	3	" 25 "	" 17 "	52	" ...	R	...	"
7	M. F.	F	1½	2	" 31 "	Mar. 1 "	57	" ...	...	D	"
8	R. G.	F	9	6	Feb. 1/97	" 2 "	28	" ...	R	...	"
9	E. M. W.	F	5	13	Mar. 2 "	Apr. 17 "	46	Faucial & Laryngeal	...	D	"
10	J. P.	M	4½	3	" 29 "	" 22 "	23	" ...	R	...	"
11	W. B.	M	1½	3	" 12 "	" 18 "	57	Laryngeal ...	R	...	"
12	A. K.	M	11	15	Apr. 4 "	" 25 "	21	Faucial ...	R	...	"
13	C. G. A.	M	4	13	" 14 "	May 20 "	37	Faucial and Nasal...	...	D	"
14	W. P.	M	3	13	July 19 "	July 27 "	7	" ...	...	D	"
15	A. G.	F	13	7	May 28 "	June 23 "	24	Faucial ...	R	...	No antitoxin.
16	A. F.	M	6	13	June 4 "	July 25 "	51	" ...	R	...	"
17	M. E.	M	3	13	" 17 "	" 20 "	33	Faucial and Nasal...	R	...	Antitoxin.
18	S. F.	M	2	13	" 25 "	" 22 "	27	Faucial ...	R	...	"
19	A. S.	M	5	13	" 26 "	Aug. 2 "	37	" ...	R	...	No antitoxin.
20	E. B.	M	3	13	July 2 "	" 1 "	29	Faucial and Nasal...	R	...	"
21	A. H.	M	3	20	" 8 "	" 1 "	23	" ...	R	...	"
22	G. L.	M	3	13	" 15 "	" 23 "	35	Faucial ...	R	...	"
23	G. G.	M	3	13	" 25 "	" 22 "	27	" ...	R	...	Antitoxin.
24	H. L.	M	3	13	" 25 "	" 22 "	22	Faucial & Laryngeal	R	...	"
25	J. L.	M	5	13	Aug. 3 "	" 30 "	23	Faucial ...	R	...	"
26	H. G.	M	9	15	" 12 "	Sept. 20 "	36	Faucial & Laryngeal	R	...	"
27	L. R.	F	2½	3	" 27 "	Nov. 30 "	94	Laryngeal ...	R	...	"
28	J. C.	M	4	13	Sept. 6 "	Sept. 29 "	22	Faucial, Nasal, and Laryngeal	R	...	"
29	A. W.	M	8	15	" 21 "	Oct. 9 "	12	Faucial and Nasal...	R	...	"

NORTH-WESTERN HOSPITAL.—TABLE III.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials.	Sex.	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
1	L. B.	F	2½	3	Oct. 23/96	Dec. 7/96	43	Faucial ...	R ...	No antitoxin.
2	R. F.	F	3	E	Nov. 16 "	" 16 "	28	" ...	R ...	Antitoxin.
3	E. P.	F	4	E	Dec. 1 "	Jan. 17/97	13	" ...	R ...	No antitoxin.
4	M. S.	F	5	A	" 2 "	" 3 "	30	Faucial & Laryngeal	R ...	"
5	G. M.	M	3	3	" 1 "	" 6 "	30	Faucial ...	R ...	Antitoxin.
6	J. T.	F	8	3	" 1 "	" 1 "	20	Faucial and Nasal	... D	"
7	A. C. H.	M	5	F	" 11 "	" 7 "	26	Faucial ...	R ...	"
8	V. W.	F	2½	2	" 31 "	" 50 "	21	Faucial & Laryngeal	R ...	"
9	A. E. F.	M	3	2	Jan. 13/97	Feb. 23 "	33	" "	R ...	"
10	H. B.	M	6	F	" 25 "	Mar. 2 "	26	Faucial ...	R ...	"
11	F. P.	M	1½	2	Feb. 14 "	" 11 "	18	" ...	... D	"
12	L. H.	F	7	B	" 23 "	" 29 "	33	Faucial & Laryngeal	R ...	"
13	A. J.	M	2½	B	Mar. 4 "	Apr. 24 "	45	Laryngeal ...	R ...	"
14	G. C.	F	12	8	Apr. 16 "	May 30 "	43	Faucial ...	R ...	"
15	M. W.	F	3	2	" 16 "	" 14 "	23	" ...	R ...	"
16	E. F.	F	4	F	" 15 "	" 31 "	41	" ...	R ...	No antitoxin.
17	W. W.	M	4½	2	" 22 "	" 27 "	31	Faucial & Laryngeal	R ...	Antitoxin.
18	E. S.	M	2	6	May 3 "	June 17 "	43	Faucial ...	R ...	"
19	L. O.	F	13	8	" 6 "	" 7 "	28	" ...	R ...	"
20	D. C.	F	4½	A	" 11 "	" 16 "	28	" ...	R ...	"
21	J. S.	M	4	C	" 9 "	" 21 "	38	Faucial & Laryngeal	R ...	"
22	J. P.	F	2	4	" 19 "	July 6 "	49	Faucial ...	R ...	"
23	M. B.	F	2	D	June 4 "	" 6 "	28	Faucial & Laryngeal	R ...	"
24	G. M.	M	2	4	" 20 "	" 22 "	27	Faucial ...	R ...	"
25	J. F.	M	3	D	July 3 "	Aug. 10 "	35	Laryngeal ...	R ...	"
26	G. F. K.	M	1	D	Doubtful	Sept. 1 "	57	Faucial & Laryngeal	R ...	"
27	H. G.	M	4	4	July 21/97	Aug. 25 "	28	Faucial ...	... D	"
28	C. H.	F	3	2	Aug. 8 "	Oct. 3 "	49	" ...	R ...	No antitoxin.
29	E. M.	F	2	C	" 22 "	Nov. 1 "	84	" ...	R ...	Antitoxin.
30	A. P.	F	3	E	Doubtful	Sept. 19 "	9	" ...	R ...	"
31	J. B.	M	3½	D	Sept. 9/97	" 29 "	19	Laryngeal ...	R ...	"
32	G. H.	M	3	C	" 9 "	Oct. 31 "	48	Faucial & Laryngeal	R ...	"
33	F. W.	F	11	6	" 23 "	" 21 "	27	Faucial ...	R ...	No antitoxin.
34	G. M.	M	5½	A	" 21 "	Nov. 4 "	27	" ...	R ...	Antitoxin.

WESTERN HOSPITAL.—TABLE IV.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials.	Sex.	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
1	T. G. O.	M	5	8	Oct. 23/96	Nov. 9/96	15	Laryngeal ...	R ...	Antitoxin.
2	V. S.	M	5	8	Nov. 15 "	Dec. 6 "	19	Faucial ...	R ...	"
3	C. G.	F	3	3	" 28 "	" 17 "	17	Faucio-laryngeal	R ...	"
4	A. P.	M	5	3	Dec. 13 "	Mar. 29/97	107	Faucial ...	R ...	No antitoxin.
5	L. S. W.	F	3	12	" 27 "	Jan. 9 "	12	Faucio-laryngeal	R ...	Antitoxin.
6	C. D.	M	2	3	Jan. 10/97	May 18 "	127	Laryngeal ...	R ...	"
7	E. E. S.	M	7	4	" 17 "	" 25 "	127	Faucial ...	R ...	No antitoxin.
8	F. B.	F	8	11	" 18 "	Apr. 4 "	74	" ...	R ...	Antitoxin.
9	A. M.	F	2	12	" 26 "	Mar. 26 "	58	Laryngeal ...	R ...	"
10	D. B.	M	3	4	Feb. 22 "	Apr. 8 "	37	Faucial ...	R ...	No antitoxin.
11	H. E.	F	9	12	Mar. 4 "	Mar. 23 "	17	" ...	R ...	Antitoxin.
12	J. W.	F	10	4	" 13 "	May 18 "	65	" ...	R ...	"
13	F. S.	F	2	13	" 13 "	Apr. 28 "	43	" ...	R ...	"
14	D. M.	F	5	4	" 31 "	May 20 "	57	Laryngeal ...	R ...	"
15	E. C.	F	19	14	Apr. 7 "	June 6 "	59	Faucial ...	R ...	No antitoxin.
16	J. C.	F	6	3	" 26 "	May 19 "	21	" ...	R ...	"
17	E. B.	M	3	9	" 27 "	" 31 "	30	Faucio-laryngeal	R ...	Antitoxin.
18	M. K.	F	8	9	May 2 "	" 19 "	16	Naso-laryngeal	R ...	No antitoxin.
19	A. B.	F	2	13	" 5 "	" 25 "	19	Faucial ...	R ...	Antitoxin.
20	D. F.	F	4	4	" 4 "	June 20 "	45	" ...	... D	"
21	R. B. W.	M	2	4	" 5 "	" 13 "	36	" ...	R ...	"
22	E. E. M.	M	1	13	" 9 "	May 22 "	12	Faucio-laryngeal and Glossal	... D	"
23	G. C. K.	F	5	4	" 23 "	June 17 "	23	Faucial ...	R ...	"
24	E. F.	M	3	9	" 24 "	" 12 "	16	" ...	R ...	"
25	C. R.	F	19	10	" 26 "	" 22 "	25	" ...	R ...	"
26	L. H.	M	10	10	June 21 "	July 10 "	19	" ...	R ...	"
27	F. M.	M	2	9	" 22 "	Sept. 30 "	99	Naso-faucial	R ...	"
28	J. H.	F	2	3	" 23 "	Aug. 14 "	51	Faucial ...	R ...	"
29	A. W.	F	4	8	" 28 "	July 7 "	7	Laryngeal ...	R ...	"
30	H. B.	F	28	4	July 10 "	Aug. 5 "	25	Faucial ...	R ...	"
31	G. H.	M	4	3	" 11 "	" 7 "	26	" ...	... D	"
32	E. D.	M	4	8	" 11 "	July 31 "	15	" ...	R ...	"
33	F. G.	M	2	4	" 13 "	" 30 "	11	" ...	R ...	"
34	F. D.	F	1	9	" 18 "	Oct. 7 "	75	" ...	R ...	No antitoxin.

WESTERN HOSPITAL.—TABLE IV.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
35	H. P.	M	11	3	Jyhu 21/97	Aug. 16/97	24	Fancial	R	...	Antitoxin.
36	R. C.	F	4	9	" 30 "	Oct. 5 "	65	"	R	...	No antitoxin.
37	A. B.	F	2	3	Aug. 15 "	Sept. 10 "	25	Laryngeal	R	...	Antitoxin.
38	H. H.	M	2	9	" 16 "	Oct. 9 "	53	Nasal	R	...	No antitoxin.
39	F. R.	M	9	9	" 18 "	Sept. 30 "	42	Faucio-laryngeal ...	R	...	Antitoxin.
40	W. C.	M	1	9	" 21 "	Oct. 2 "	38	Faucio-nasal	R	...	No antitoxin.
41	H. F.	M	4	9	Sept. 1 "	Sept. 21 "	18	Faucial	R	...	Antitoxin.
42	M. B.	F	7	13	" 6 "	" 25 "	10	"	R	...	No antitoxin.
43	L. D.	F	6	9	" 10 "	Oct. 14 "	31	"	R	...	"
44	F. D.	M	6	12	" 12 "	" 17 "	32	"	R	...	Antitoxin.
45	F. G.	M	10	10	" 17 "	" 1 "	8	Faucio-laryngeal ...	R	...	"
46	D. P.	F	4	9	" 17 "	" 11 "	17	Faucial	R	...	No antitoxin
47	C. P.	F	8	9	" 21 "	" 12 "	18	"	R	...	"
48	L. B.	M	6	9	" 25 "	Nov. 30 "	34	Faucio-laryngeal ...	...	D	Antitoxin.

SOUTH-WESTERN HOSPITAL.—TABLE V.—*Post-Scarlatinal Diphtheria, 1897.*

No.	Initials	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	H. B.	M	3	Bostock	Aug. 3/96	Dec. 16/96	132	Faucio-nasal	R	...	Antitoxin.
2	E. B.	M	5	Cameron	" 30 "	Oct. 15 "	36	" "	R	...	"
3	A. M.	M	7	Devon ...	Sept. 28 "	Jan. 5/97	94	Faucial	R	...	No antitoxin.
4	C. K.	M	4	Brewer...	" 30 "	Oct. 22/96	19	"	R	...	Antitoxin.
5	F. W.	M	5	Bostock	" 30 "	Feb. 20/97	142	"	R	...	No antitoxin.
6	A. R.	F	7	Lockyer	Oct. 1 "	Nov. 28/96	50	"	R	...	"
7	C. H.	M	4	Lockyer	" 21 "	" 15 "	25	Laryngeal	R	...	Antitoxin.
8	A. P.	M	9	Bostock	" 25 "	" 30 "	34	Faucial	R	...	No antitoxin.
9	A. B.	M	9	Bostock	Nov. 3 "	Jan. 8/97	59	"	R	...	"
10	I. D.	F	8	Harvey...	" 29 "	" 20 "	49	"	R	...	Antitoxin.
11	M. A.	M	14	Bostock	Dec. 7 "	" 19 "	39	"	R	...	No antitoxin.
12	P. B.	M	9	Haygarth	" 17 "	" 12 "	26	"	R	...	"
13	S. R.	M	4	Cameron	Jan. 15/97	Mar. 4 "	55	"	R	...	Antitoxin.
14	S. W.	M	3	South ...	" 24 "	Feb. 20 "	24	Nasal	R	...	No antitoxin.
15	H. M.	M	3	Haygarth	" 24 "	" 26 "	32	Laryngeal	R	...	Antitoxin.
16	S. T.	M	5	Devon ...	" 27 "	" 13 "	12	Faucio-nasal	R	...	"
17	H. H.	F	3	Lockyer	" 29 "	Mar. 26 "	52	Faucial ... ..	...	D	"
18	V. M.	F	5	Cameron	Feb. 3 "	" 10 "	29	"	R	...	No antitoxin.
19	C. E.	M	6	South ..	" 4 "	" 5 "	23	"	R	...	Antitoxin.
20	F. S.	F	8	B'ngough	" 9 "	" 19 "	25	"	R	...	No antitoxin.
21	J. C.	M	5	South ...	" 21 "	" 28 "	31	"	R	...	Antitoxin.
22	J. M.	M	5	Haygarth	Mar. 3 "	" 31 "	27	Laryngeal	R	...	"
23	W. N.	M	16	Brewer...	" 11 "	Apr. 11 "	29	Faucio-nasal	R	...	"
24	M. B.	F	2	Cameron	June 2 "	June 26 "	22	" "	R	...	No antitoxin.
25	J. B.	F	6	Lockyer	July 5 "	Aug. 16 "	40	Naso-laryngeal ...	R	...	Antitoxin.
26	M. W.	F	12	Cameron	" 6 "	Sept. 8 "	50	Faucial	R	...	No antitoxin.
27	E. N.	M	3	Haygarth	" 22 "	Aug. 20 "	28	" ... ..	...	D	Antitoxin.
28	C. A.	M	11	Bostock	Aug. 21 "	Oct. 23 "	61	"	R	...	No antitoxin.
29	D. S.	F	5	Lockyer	Sept. 23 "	" 20 "	23	"	R	...	"
30	F. A.	M	7	South ..	" 2 "	Sept. 18 "	15	"	R	...	Antitoxin.
31	B. W.	F	16	Cameron	Oct. 5 "	Oct. 29 "	23	"	R	...	No antitoxin.

FOUNTAIN HOSPITAL.—TABLE VI.—*Post-Scarlatinal Diphtheria, 1897.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	J. T.	M	7	8	Sept. 27/96	Oct. 17/96	15	Faucial	R	...	Antitoxin.
2	W. G.	M	3	4	Oct. 9 "	Dec. 9 "	55	Faucial & Laryngeal	R	...	"
3	S. R.	M	4	10	Sept. 30 "	" 22 "	70	Nasal	R	...	No antitoxin.
4	W. R.	M	10	12	Nov. 4 "	Nov. 20 "	11	Faucial	R	...	Antitoxin.
5	W. F.	M	6	10	Oct. 5 "	Dec. 11 "	66	"	R	...	"
6	W. C.	F	7	5	" 25 "	Nov. 14 "	17	"	R	...	"
7	M. W.	F	5	4	Sept. 27 "	Jan. 6/97	90	"	R	...	No antitoxin.
8	G. B.	M	2	9	Nov. 23 "	Dec. 11/96	17	Nasal	R	...	Antitoxin.
9	W. B.	M	6	11	Oct. 10 "	Oct. 29 "	17	"	R	...	"
10	A. B.	F	6	3	Nov. 8 "	Dec. 18 "	31	Faucial	R	...	"
11	H. G.	M	5	4	" 22 "	" 14 "	21	Nasal	R	...	"
12	F. C.	F	5	5	Dec. 20 "	Jan. 6/97	18	Faucial	R	...	"

FOUNTAIN HOSPITAL.—TABLE VI.—*Post-Scarlatinal Diphtheria*, 1897—*contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
13	A. A.	F	4	4	Dec. 2/96	Jan. 15/97	42	Faucial	R ...	Antitoxin.
14	G. A.	F	12	1	Oct. 28 "	" 15 "	56	"	R ...	"
15	A. H.	F	8	4	Dec. 18 "	Feb. 20 "	64	Laryngeal	R ...	"
16	D. G.	F	6	2	Jan. 20/97	" 14 "	23	Faucial	R ...	"
17	G. A.	M	5	9	Dec. 8/96	Jan. 28 "	61	Faucial and Nasal...	R ...	"
18	N. M.	M	10	10	Jan. 17/97	Feb. 8 "	20	"	R ...	"
19	W. R.	F	3	6	Dec. 3/96	" 5 "	59	"	R ...	"
20	E. B.	F	4	4	Jan. 10/97	" 8 "	28	Faucial	R ...	"
21	K. E.	F	10	1	" 25 "	" 14 "	18	"	R ...	"
22	H. A.	M	5	6	" 29 "	Mar. 2 "	33	Faucial and Nasal...	R ...	"
23	M. P.	F	16	2	Feb. 22 "	" 11 "	15	Faucial	R ...	"
24	E. R.	F	5	2	" 16 "	" 23 "	25	"	R ...	No antitoxin.
25	A. M.	F	5	8	Jan. 30 "	" 20 "	46	"	R ...	Antitoxin.
26	L. S.	F	6	2	" 19 "	Feb. 7 "	19	"	R ...	"
27	M. S.	M	5	6	Feb. 2 "	" 19 "	17	"	R ...	"
28	A. E.	F	5	4	" 7 "	Mar. 4 "	23	"	R ...	"
29	A. S.	F	5	2	" 18 "	" 16 "	25	"	R ...	"
30	R. M.	F	2	3	" 4 "	" 17 "	40	Laryngeal	R ...	"
31	W. C.	M	4	2	" 8 "	" 2 "	22	Faucial	R ...	"
32	T. A.	M	8	12	Mar. 4 "	Apr. 7 "	32	"	R ...	"
33	A. V.	F	6	3	" 17 "	" 21 "	33	"	R ...	"
34	E. H.	F	5	8	" 21 "	" 19 "	25	"	R ...	No antitoxin.
35	R. W.	M	3	10	" 21 "	" 12 "	19	Nasal	R ...	Antitoxin.
36	F. H.	M	7	10	" 13 "	" 5 "	20	Faucial	R ...	"
37	H. P.	M	6	12	" 2 "	Mar. 19 "	16	"	R ...	"
38	E. K.	F	6	3	Feb. 27 "	" 19 "	20	"	R ...	"
39	E. B.	F	5	2	" 23 "	" 19 "	20	"	R ...	No antitoxin.
40	A. M.	M	2	2	" 24 "	" 13 "	16	"	R ...	"
41	R. W.	F	6	8	" 19 "	Apr. 3 "	38	"	R ...	Antitoxin.
42	M. B.	F	2	6	" 25 "	" 3 "	36	"	R ...	"
43	M. F.	F	5	1	Jan. 30 "	" 1 "	57	"	R ...	"
44	G. C.	M	9	10	Dec. 21/96	Jan. 14 "	21	"	R ...	"
45	F. W.	F	6	2	Mar. 21/97	Apr. 18 "	28	Faucial & Laryngeal	R ...	"
46	F. M.	F	1	6	Feb. 8 "	Mar. 18 "	37	Faucial	R ...	No antitoxin.
47	G. M.	F	3	2	Mar. 26 "	Apr. 12 "	17	Nasal	R ...	"
48	M. N.	F	20	1	" 3 "	Mar. 27 "	21	Faucial	R ...	"
49	B. M.	F	12	6	" 7 "	May 1 "	53	"	R ...	Antitoxin.
50	F. M.	M	7	9	" 25 "	Apr. 12 "	14	"	R ...	"
51	A. S.	M	5	9	" 13 "	" 13 "	29	"	R ...	No antitoxin.
52	E. B.	F	9	2	Apr. 8 "	" 30 "	21	"	R ...	Antitoxin.
53	F. R.	F	6	2	Mar. 19 "	" 7 "	16	"	R ...	"
54	A. W.	M	4	11	July 3 "	July 25 "	19	Nasal	R ...	"
55	E. B.	F	2	3	May 10 "	June 20 "	38	Faucial	R ...	"
56	H. F.	M	15	9	Apr. 12 "	May 8 "	24	"	R ...	No antitoxin.
57	M. S.	F	11	2	Aug. 21 "	Sept. 1 "	9	"	R ...	Antitoxin.
58	G. P.	F	6	3	" 28 "	" 20 "	21	"	R ...	No antitoxin.
59	M. A.	F	2	8	July 30 "	" 18 "	50	"	R ...	"
60	C. C.	M	2	5	Aug. 17 "	Oct. 4 "	47	Nasal	R ...	"
61	E. G.	F	6	5	" 17 "	Sept. 1 "	11	Faucial	R ...	"
62	A. W.	M	5	3	" 20 "	" 28 "	24	"	R ...	"
63	G. W.	F	6	6	" 19 "	" 7 "	18	"	R ...	"
64	C. B.	F	6	8	June 8 "	Aug. 30 "	79	"	R ...	Antitoxin.
65	F. R.	M	1	6	Sept. 21 "	Oct. 7 "	7	Nasal ... ..	... D	"
66	C. S.	M	5	2	July 20 "	Aug. 27 "	37	Faucial	R ...	"
67	V. G.	F	3	8	" 27 "	" 26 "	28	Nasal	R ...	"
68	N. P.	F	4	8	June 12 "	" 31 "	78	Faucial	R ...	"
69	E. K.	F	10	6	Aug. 4 "	Sept. 15 "	40	"	R ...	No antitoxin.
70	J. D.	F	4	3	July 13 "	" 2 "	45	"	R ...	"
71	C. M.	F	4	8	Aug. 15 "	" 4 "	16	"	R ...	"
72	D. B.	F	5	4	June 13 "	" 4 "	82	"	R ...	"
73	C. T.	M	13	10	July 25 "	Aug. 10 "	14	"	R ...	"
74	C. M.	F	6	3	Aug. 29 "	Sept. 7 "	8	"	R ...	"
75	L. B.	F	5	1	July 26 "	" 1 "	33	"	R ...	"
76	D. B.	F	8	6	May 13 "	June 25 "	41	"	R ...	Antitoxin.
77	F. S.	F	10	6	" 10 "	" 10 "	29	"	R ...	"
78	D. L.	M	2	8	July 2 "	Sept. 20 "	42	Nasal	R ...	"
79	F. J.	F	8	3	" 19 "	Aug. 29 "	40	Faucial	R ...	No antitoxin.
80	J. J.	M	3	2	June 27 "	" 21 "	52	"	R ...	Antitoxin.
81	A. W.	M	5	9	July 12 "	" 19 "	36	"	R ...	"
82	A. W.	M	11	2	" 14 "	" 24 "	39	"	R ...	"
83	B. M.	F	4	5	Sept. 6 "	Oct. 11 "	32	"	R ...	No antitoxin.
84	E. L.	F	5	8	July 24 "	Sept. 23 "	57	Nasal	R ...	"
85	W. L.	F	2	8	Sept. 2 "	" 29 "	26	"	R ...	Antitoxin.
86	R. B.	F	9	5	Aug. 15 "	Oct. 3 "	16	Faucial	R ...	No antitoxin.
87	E. S.	M	8	12	" 24 "	Sept. 27 "	33	"	R ...	"
88	A. S.	F	3	8	Apr. 30 "	Aug. 6 "	98	"	R ...	Antitoxin.
89	E. S.	M	2	6	Oct. 12 "	Nov. 11 "	27	Nasal ... ..	... D	"
90	H. G.	M	11	10	Aug. 20 "	Sept. 15 "	23	Faucial	R ...	No antitoxin.
91	S. C.	M	5	10	Oct. 19 "	Nov. 20 "	29	"	R ...	"

SOUTH-EASTERN HOSPITAL.—TABLE VII.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	A. L.	F	7	14	Sept. 20/96	Sept. 28/96	5	Faucial	R	...	No antitoxin.
2	C. B.	F	4	14	Nov. 20 "	Jan. 3/97	40	" ... ..	...	D	"
3	R. V.	M	7	Hut	" 3 "	Dec. 18/96	37	"	R	...	Antitoxin.
4	W. W.	M	4	Hut	" 29 "	" 22 "	21	Faucial and Nasal...	R	...	"
5	G. S.	M	3	14	Dec. 6 "	Jan. 4/97	27	" "	R	...	No antitoxin.
6	G. S.	M	2	13	Feb. 23/97	Mar. 31 "	36	" "	R	...	"
7	E. L.	F	4	13	Mar. 27 "	Apr. 17 "	20	Faucial	R	...	Antitoxin.
8	F. J.	F	3	15	" 24 "	" 19 "	25	"	R	...	"
9	E. H.	F	4	13	Apr. 4 "	" 22 "	18	"	R	...	No antitoxin.
10	A. A.	M	11	13	Mar. 19 "	" 23 "	34	Faucial and Nasal...	R	...	Antitoxin.
11	S. H.	F	2	13	" 26 "	" 22 "	25	Faucial	R	...	No antitoxin.
12	P. C.	F	1½	13	" 27 "	" 20 "	23	"	R	...	Antitoxin.
13	M. L.	F	4	13	Apr. 3 "	" 22 "	17	"	R	...	No antitoxin.
14	W. S.	F	3	12	Mar 30 "	May 30 "	53	" ... ..	...	D	"
15	H. N.	F	4	12	Apr. 26 "	June 18 "	52	"	R	...	Antitoxin.
16	K. B.	F	5	13	May 12 "	" 13 "	30	"	R	...	"
17	F. B.	M	2	13	Apr. 25 "	May 15 "	16	Faucial and Nasal...	R	...	No antitoxin.
18	F. H.	F	5	11	June 22 "	July 25 "	31	" " ... ..	...	D	Antitoxin.
19	F. H.	M	4	13	May 22 "	June 12 "	21	Faucial	R	...	"
20	M. K.	M	3	15	" 6 "	July 17 "	67	Faucial & Laryngeal	R	...	"
21	S. D.	F	6	13	Apr. 3 "	May 11 "	26	Faucial	R	...	No antitoxin.
22	E. J.	F	8	17	May 18 "	Aug. 1 "	71	"	R	...	Antitoxin.
23	W. S.	M	8	9	June 14 "	July 12 "	27	"	R	...	"
24	A. G.	F	6	12	Apr. 10 "	June 4 "	40	"	R	...	"
25	M. M.	F	10	13	July 26 "	Aug. 18 "	11	"	R	...	"
26	G. M.	F	4	13	June 21 "	July 8 "	15	Faucial and Nasal...	R	...	No antitoxin.
27	E. J.	M	3	13	" 22 "	Aug. 6 "	43	Faucial	R	...	"
28	M. P.	F	3	14	Oct. 8 "	Nov. 1 "	18	" ... ..	...	D	Antitoxin.
29	G. H.	F	6	13	Aug. 6 "	Aug. 28 "	21	"	R	...	No antitoxin.
30	N. McC.	F	6	10	July 28 "	Sept. 24 "	56	"	R	...	"
31	F. McN.	F	5	13	" 11 "	July 20 "	9	Faucial and Nasal...	R	...	Antitoxin.
32	J. N.	F	1½	10	" 14 "	Oct. 2 "	80	Faucial	R	...	"
33	N. P.	F	4	13	Aug. 4 "	Sept. 13 "	38	"	R	...	"
34	E. Y.	F	8	14	Sept. 30 "	Nov. 17 "	33	"	R	...	"

BROOK HOSPITAL.—TABLE VIII.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.		Antitoxin or not.
1	A. B.	F	5	C2sep	Aug. 28/96	Nov. 24/96	83	Nasal	R	...	No antitoxin.
2	E. H.	F	4	C 2	" 30 "	Dec. 28 "	54	"	R	...	"
3	S. D.	M	6	D 1	Nov. 17 "	Jan. 1/97	43	"	R	...	"
4	G. H.	F	30	B 1	" 20 "	Dec. 19/96	26	Faucial	R	...	"
5	A. L.	M	5	R	Sept. 27 "	" 17 "	76	Faucial and Nasal...	R	...	Antitoxin.
6	C. H.	M	2½	P	Oct. 6 "	Nov. 19 "	42	Faucial, Nasal, and Laryngeal	R	...	"
7	E. E.	F	7	B 1	Nov. 13 "	Dec. 28 "	44	" "	R	...	"
8	H. H.	M	2½	F 1	Oct. 8 "	" 22 "	63	Nasal	R	...	No antitoxin.
9	A. J.	M	5½	F 2	Nov. 30 "	Jan. 7/97	44	"	R	...	"
10	V. T.	F	8	P	Dec. 10 "	" 3 "	23	Faucial	R	...	Antitoxin.
11	C. R.	M	1½	E 1	Nov. 11 "	" 7 "	53	Nasal	R	...	No antitoxin.
12	A. C.	M	4	F 2	Dec. 30 "	" 25 "	25	"	R	...	"
13	A. N.	M	6	F 1	Nov. 8 "	" 28 "	82	"	R	...	"
14	P. T.	M	3	B 1	Dec. 13 "	" 6 "	22	Nasal and Faucial...	R	...	Antitoxin.
15	P. W.	M	3	Q	Oct. 26 "	Nov. 17/96	25	Faucial	R	...	"
16	A. B.	F	3	C 2	" 16 "	" 23 "	25	Nasal	R	...	No antitoxin.
17	W. R.	M	11	F 2	Nov. 25 "	Feb. 1/97	68	"	R	...	"
18	J. P.	M	3	H 2	" 7 "	Jan. 3 "	51	"	R	...	"
19	C. D.	F	2½	D 1	" 15 "	" 11 "	45	"	R	...	"
20	J. C.	M	4	S	" 18 "	Feb. 21 "	95	Faucial	R	...	"
21	F. P.	M	8	G 2	Dec. 27 "	" 8 "	39	"	R	...	"
22	A. P.	M	8	F 2	Jan. 4/97	" 8 "	35	Nasal	R	...	"
23	C. M.	F	2	H 1	Nov. 4/96	Jan. 4 "	55	"	R	...	"
24	R. H.	M	6	E 2	Dec. 18 "	" 18 "	31	"	R	...	"
25	J. C.	M	6	F 2	Jan. 7/97	Feb. 23 "	42	Nasal and Faucial...	R	...	"
26	M. N.	F	3	H 1	Dec. 10/96	Dec. 23/96	12	Nasal	R	...	"
27	M. P.	F	4	B 1	" 12 "	Jan. 13/97	29	"	R	...	"
28	S. A.	M	3½	A 2	" 11 "	Dec. 22/96	7	"	R	...	"
29	A. E.	F	3	H 1	Nov. 23 "	" 23 "	24	"	R	...	"
30	S. H.	F	4	B 1	Oct. 21 "	Feb. 12/97	60	"	R	...	"
31	M. B.	F	4	C 2	Dec. 27 "	" 24 "	47	Nasal, Faucial, and Laryngeal	R	...	Antitoxin.
32	G. P.	M	3	F 2	Nov. 25 "	" 24 "	90	Nasal	R	...	No antitoxin.

BROOK HOSPITAL.—TABLE VIII.—*Post-Scarlatinal Diphtheria, 1897—Contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
33	A. L.	M	12	G 1	Jan. 2/97	Feb. 26/97	52	Nasal	R ..	No antitoxin.
34	G. L.	M	4	E 1	" 13 "	" 2 "	19	"	R ..	"
35	A. N.	M	7	F 2	" 24 "	" 24 "	26	Faucial	R ..	Antitoxin.
36	W. N.	M	10	F 2	" 19 "	" 17 "	19	Nasal and Faucial ..	R ..	"
37	S. H.	M	3	E 1	Feb. 9 "	Mar. 6 "	22	Nasal, Faucial, and Laryngeal	R ..	"
38	E. H.	M	3	E 2	Oct. 11/96	Jan. 18 "	99	Nasal and Faucial...	R ..	No antitoxin.
39	S. S.	F	6	C 1	May 30/97	June 9 "	8	" "	R ..	Antitoxin.
40	R. E. C.	F	6	D 2	" 15 "	July 19 "	63	" "	R ..	"
41	K. D.	F	8	D 2	June 26 "	" 26 "	26	Nasal	R ..	No antitoxin.
42	P. T.	M	3	F 1	July 4 "	" 23 "	16	"	R ..	"
43	P. H.	M	4	D 2	" 6 "	Aug. 28 "	40	Nasal, Faucial, and Laryngeal	R ..	Antitoxin.
44	H. B.	F	2	D 2.	" 20 "	" 8 "	16	Nasal	R ..	"
45	A. R.	F	3	D 1	" 17 "	Oct. 6 "	77	"	R ..	No antitoxin.
46	H. A.	F	9	D 1	Sept. 11 "	Sept. 29 "	14	"	R ..	"
47	A. C.	F	5	C 1	Aug. 9 "	Oct. 18 "	68	Faucial	R ..	"
48	M. S.	F	3	D 2	Sept. 7 "	" 9 "	30	Nasal	R ..	"
49	F. B.	M	2½	D 2	July 25 "	Aug. 23 "	18	Nasal and Faucial...	R ..	"
50	D. L.	F	2	D 2	Sept. 8 "	Oct. 30 "	52	Nasal	R ..	"
51	C. L.	F	5	D 1	" 5 "	" 25 "	48	"	R ..	"
52	G. V.	F	7	C 2	" 27 "	" 20 "	15	"	R ..	"
53	J. R.	F	2½	D 2	June 9 "	July 21 "	41	Nasal, Faucial, and Laryngeal	R ..	Antitoxin.
54	A. J.	M	4	D 2	Sept. 9 "	Nov. 2 "	54	Faucial	R ..	"
55	H. G.	M	4	D 2	" 10 "	Sept. 28 "	14	Nasal	R ..	No antitoxin.
56	D. H.	F	4	Q	" 11 "	Nov. 3 "	51	Faucial	R ..	Antitoxin.

GORE FARM HOSPITAL.—TABLE IX.—*Post-Scarlatinal Diphtheria, 1897.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
1	M. R.	F	6	N	Aug. 13/96	Oct. 30/96	55	Faucial	R ..	Antitoxin.
2	J. S.	M	8	S	" 12 "	Jan. 3/97	123	"	R ..	"
3	W. P.	M	4	A	" 15 "	Oct. 25/96	46	"	R ..	"
4	C. G.	F	6	A	" 15 "	Nov. 9 "	55	"	R ..	"
5	N. C.	F	2	A	" 21 "	Jan. 30/97	137	"	R ..	"
6	G. P.	M	10	K	Sept. 4 "	Dec. 1/96	60	"	R ..	"
7	E. E.	F	5	B	" 15 "	Nov. 11 "	35	"	R ..	"
8	J. S.	M	7	A	Oct. 1 "	Dec. 16 "	69	"	R ..	"
9	C. S.	M	6	O	Sept. 17 "	Nov. 15 "	33	"	R ..	"
10	C. S.	F	7	Q	" 2 "	" 14 "	31	"	R ..	"
11	P. H.	F	5	A	" 15 "	" 5 "	21	"	R ..	"
12	V. S.	M	5	P	Oct. 7 "	Oct. 22 "	6	Faucial & Laryngeal	R ..	"
13	E. W.	M	4	N	" 2 "	Dec. 2 "	44	Faucial	R ..	"
14	S. N.	M	5	R	Sept. 23 "	Nov. 17 "	31	"	R ..	"
15	W. R.	M	10	K	Oct. 2 "	Dec. 2 "	44	"	R ..	"
16	F. S.	M	5	Q	Sept. 23 "	Nov. 25 "	34	"	R ..	"
17	A. S.	F	5	P	" 26 "	Oct. 28 "	5	"	R ..	"
18	W. W.	M	7	L	Oct. 7 "	Nov. 2 "	6	"	R ..	"
19	M. F.	F	6	A	" 7 "	" 26 "	30	"	R ..	"
20	A. W.	M	7	H	" 1 "	Dec. 4 "	37	"	R ..	"
21	F. W.	M	3	N	" 6 "	" 3 "	36	"	R ..	"
22	S. T.	F	8	P	" 13 "	" 13 "	46	"	R ..	"
23	E. G.	M	5	I	Sept. 26 "	Nov. 11 "	14	"	R ..	"
24	A. P.	M	8	L	Oct. 13 "	Dec. 10 "	42	"	R ..	"
25	E. H.	M	6	I	Sept. 22 "	Nov. 18 "	15	"	R ..	"
26	E. W.	F	8	P	Oct. 2 "	Jan. 11/97	5	"	R ..	"
27	E. W.	M	6	T	Sept. 15 "	" 24 "	75	"	R ..	"
28	L. A.	F	7	A	Oct. 6 "	Dec. 17/96	27	"	R ..	"
29	T. M.	M	7	I	" 24 "	Nov. 29 "	9	"	R ..	"
30	A. C.	M	7	T	Dec. 8 "	Mar. 2/97	62	"	R ..	"
31	A. M.	M	6	J	Nov. 13 "	Feb. 5 "	31	"	R ..	"
32	J. F.	M	7	L	Dec. 5 "	Mar. 3 "	43	"	R ..	"
33	P. J.	M	8	T	" 16 "	Feb. 22 "	32	"	R ..	"
34	A. C.	M	8	J	" 10 "	" 12 "	10	"	R ..	"
35	E. J.	M	4	J	Jan. 18/97	" 9 "	1	"	R ..	"
36	J. P.	M	3	B	" 19 "	" 21 "	12	"	R ..	"
37	E. S.	F	13	C	" 22 "	Mar. 23 "	44	"	R ..	"
38	J. R.	M	10	I	" 19 "	Apr. 2 "	48	"	R ..	"
39	A. J.	M	2	B	" 12 "	Mar. 18 "	29	"	R ..	"
40	W. P.	M	4	R	Feb. 1 "	May 12 "	84	"	R ..	"
41	E. E.	F	7	E	Dec. 28/96	Feb. 23 "	3	"	R ..	"
42	B. H.	M	4	M	Jan. 14/97	May 31 "	102	"	R ..	"
43	E. S.	F	18	F	Dec. 31/96	Mar. 9 "	19	"	R ..	"
44	A. S.	F	4	A	Jan. 25/97	Apr. 30 "	68	"	R ..	"

GORE FARM HOSPITAL.—TABLE IX.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
45	H. W.	M	9	I	Dec. 30/96	Mar. 5/97	11	Faucial ...	R ...	Antitoxin.
46	W. A.	M	10	H	Jan. 18/97	" 28 "	33	" ...	R ...	"
47	A. N.	M	6	I	Feb. 2 "	May 5 "	71	" ...	R ...	"
48	C. J.	M	5	S	" 18 "	June 2 "	63	" ...	R ...	"
49	M. H.	F	7	A	" 12 "	Apr. 30 "	29	" ...	R ...	"
50	T. McM.	M	10	R	Mar. 8 "	" 2 "	1	" ...	R ...	"
51	T. C.	F	11	F	Feb. 17 "	May 5 "	27	" ...	R ...	"
52	J. L.	M	6	R	Mar. 25 "	Apr. 14 "	2	" ...	R ...	"
53	V. S.	F	9	M	" 2 "	May 5 "	12	" ...	R ...	"
54	R. S.	F	4	A	" 8 "	" 31 "	38	Faucial & Laryngeal	R ...	"
55	E. J.	F	3	A	" 26 "	" 29 "	32	" "	R ...	"
56	F. B.	F	3	A	Feb. 11 "	" 20 "	23	" "	R ...	"
57	N. P.	F	4	P	" 15 "	" 10 "	10	Faucial ...	R ...	"
58	E. C.	F	5	E	Apr. 1 "	" 27 "	27	" ...	R ...	"
59	W. H.	M	4	A	Mar. 27 "	June 11 "	38	" ...	R ...	"
60	E. N.	F	10	C	Apr. 12 "	" 12 "	39	" ...	R ...	"
61	G. M.	M	14	I	" 30 "	" 6 "	26	" ...	R ...	"
62	G. C.	M	9	M	Dec. 24/96	" 20 "	40	" ...	R ...	"
63	J. T.	F	4	A	Mar. 31/97	July 12 "	50	Faucial & Laryngeal	R ...	"
64	E. C.	M	6	S	Apr. 28 "	June 9 "	23	Faucial ...	R ...	"
65	P. F.	F	7	A	" 17 "	July 1 "	44	" ...	R ...	"
66	A. S.	F	7	C	" 16 "	" 18 "	61	" ...	R ...	"
67	E. S.	F	10	C	" 29 "	May 24 "	3	" ...	R ...	"
68	C. B.	F	8	A	" 18 "	July 25 "	65	" ...	R ...	"
69	W. S.	M	10	S	" 26 "	June 4 "	13	Faucial & Laryngeal	R ...	"
70	B. A.	F	7	P	" 26 "	July 2 "	41	Faucial ...	R ...	"
71	C. S.	F	7	P	May 3 "	May 27 "	3	" ...	R ...	"
72	D. T.	F	9	O	" 10 "	June 15 "	14	" ...	R ...	"
73	J. S.	M	6	L	" 15 "	Aug. 14 "	72	" ...	R ...	"
74	H. F.	M	4	O	" 10 "	June 5 "	1	Faucial & Laryngeal	... D	"
75	R. C.	F	4	C	Apr. 19 "	" 18 "	10	Faucial ...	R ...	"
76	F. W.	F	13	C	May 14 "	" 21 "	12	" ...	R ...	"
77	A. B.	F	6	A	" 21 "	July 13 "	34	" ...	R ...	"
78	E. B.	F	11	C	" 8 "	June 17 "	7	" ...	R ...	"
79	M. H.	F	8	B	" 14 "	July 9 "	29	" ...	R ...	"
80	J. S.	M	5	B	" 10 "	" 19 "	35	" ...	R ...	"
81	A. A.	F	5	B	" 7 "	" 29 "	45	" ...	R ...	"
82	E. G.	F	7	B	" 17 "	June 28 "	11	" ...	R ...	"
83	R. K.	F	5	B	" 20 "	July 13 "	26	" ...	R ...	"
84	H. G.	F	7	B	Mar. 31 "	" 28 "	40	" ...	R ...	"
85	C. L.	F	9	C	May 17 "	" 10 "	17	" ...	R ...	"
86	J. B.	M	9	S	" 20 "	Aug. 16 "	53	Faucial & Laryngeal	R ...	"
87	E. S.	F	6	A	June 10 "	July 1 "	2	Faucial ...	R ...	"
88	G. A.	F	6	A	May 17 "	" 5 "	4	" ...	R ...	"
89	E. W.	F	5	E	June 4 "	" 15 "	14	" ...	R ...	"
90	W. A.	M	13	K	May 23 "	Aug. 12 "	38	" ...	R ...	"
91	R. S.	F	4	A	" 15 "	July 25 "	18	" ...	R ...	"
92	C. B.	M	5	O	June 9 "	" 21 "	14	" ...	R ...	"
93	J. B.	F	6	O	" 3 "	Aug. 29 "	53	" ...	R ...	"
94	E. H.	F	5	F	" 11 "	July 29 "	21	" ...	R ...	"
95	N. P.	F	10	F	" 18 "	Aug. 15 "	34	" ...	R ...	"
96	E. G.	F	9	F	" 14 "	July 20 "	8	" ...	R ...	"
97	M. T.	F	8	F	" 21 "	Aug. 14 "	31	" ...	R ...	"
98	M. W.	F	6	Q	" 1 "	July 23 "	9	" ...	R ...	"
99	W. T.	F	8	E	" 26 "	Aug. 10 "	25	" ...	R ...	"
100	G. C.	F	14	C	" 4 "	July 24 "	8	" ...	R ...	"
101	W. G.	F	14	C	" 15 "	Aug. 16 "	31	" ...	R ...	"
102	E. F.	F	4	E	" 14 "	" 3 "	18	" ...	R ...	"
103	R. D.	M	5	R	" 19 "	" 2 "	14	Faucial & Laryngeal	R ...	"
104	S. C.	M	4	R	" 21 "	Sept. 13 "	55	Laryngeal ...	R ...	"
105	F. G.	F	3	A	" 8 "	Oct. 27 "	92	Faucial ...	R ...	"
106	A. G.	F	6	O	July 9 "	Aug. 10 "	14	" ...	R ...	"
107	A. F.	F	6	B	" 5 "	" 10 "	13	" ...	R ...	"
108	M. K.	F	4	B	May 29 "	" 5 "	8	Laryngeal & Faucial	R ...	"
109	E. H.	F	6	O	July 2 "	Oct. 30 "	94	" "	R ...	"
110	H. P.	M	13	J	" 9 "	Aug. 10 "	12	" "	... D	"
111	M. R.	F	7	B	" 8 "	" 25 "	27	" "	R ...	"
112	M. H.	F	3	B	June 17 "	" 4 "	6	" "	R ...	"
113	M. H.	F	9	B	July 9 "	" 12 "	14	" "	R ...	"
114	F. D.	M	10	J	" 13 "	" 10 "	11	Laryngeal ...	R ...	"
115	E. H.	F	12	B	June 30 "	" 17 "	17	Faucial ...	R ...	"
116	H. M.	M	6	I	July 8 "	Sept. 10 "	39	" ...	R ...	"
117	A. C.	M	7	J	" 16 "	" 13 "	41	" ...	R ...	"
118	E. B.	F	7	E	" 10 "	Aug. 13 "	9	" ...	R ...	"
119	O. C.	F	7	O	" 5 "	" 10 "	5	" ...	R ...	"
120	T. B.	M	9	K	" 15 "	Sept. 1 "	27	" ...	R ...	"
121	C. B.	M	9	K	" 16 "	Aug. 31 "	21	Laryngeal & Faucial	R ...	"
122	J. B.	M	6	B	June 12 "	" 23 "	11	Faucial ...	R ...	"
123	J. B.	M	7	H	July 21 "	Oct. 12 "	61	" ...	R ...	"
124	A. F.	M	6	I	" 29 "	Sept. 26 "	44	Laryngeal ...	R ...	"
125	M. C.	M	4	A	" 21 "	" 2 "	20	Faucial ...	R ...	"

GORE FARM HOSPITAL.—TABLE IX.—*Post-Scarlatinal Diphtheria*, 1897—*contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
126	G. M.	M	4	J	July 7/97	Aug. 19/97	6	Faucial & Laryngeal	R ..	Antitoxin.
127	L. W.	F	6	B	" 16 "	" 21 "	4	" "	... D	"
128	B. S.	M	9	K	" 28 "	Oct. 16 "	60	" "	R ...	"
129	A. E.	M	14	S	Aug. 5 "	" 1 "	43	" "	R ...	"
130	H. P.	M	10	T	July 19 "	" 3 "	45	" "	R ...	"
131	J. P.	M	6	K	Aug. 6 "	Sept. 23 "	35	" "	R ...	"
132	F. T.	M	8	K	July 28 "	" 5 "	17	" "	R ...	"
133	T. C.	M	6	I	" 11 "	" 12 "	24	" "	R ...	"
134	O. H.	F	4	A	June 17 "	Oct. 21 "	58	" "	R ...	"
135	F. E.	M	12	T	Aug. 4 "	" 20 "	57	Faucial ...	R ...	"
136	E. S.	F	8	O	July 28 "	Sept. 12 "	17	" ...	R ...	"
137	F. D.	M	6	R	Aug. 4 "	" 24 "	28	" ...	R ...	"
138	H. C.	M	11	R	July 29 "	Aug. 30 "	2	" ...	R ...	"
139	S. H.	F	7	O	" 28 "	Sept. 14 "	14	" ...	R ...	"
140	H. C.	M	10	K	Aug. 11 "	" 2 "	2	" ...	R ...	"
141	J. C.	M	6	K	July 8 "	" 8 "	7	" ...	R ...	"
142	W. R.	M	5	T	Aug. 2 "	" 9 "	6	" ...	R ...	"
143	W. S.	M	12	H	" 17 "	Nov. 2 "	53	" ...	R ...	"
144	R. T.	M	6	T	" 16 "	Sept. 14 "	4	Faucial & Laryngeal	R ...	"
145	J. D.	F	9	O	" 28 "	" 23 "	13	Faucial ..	R ...	"
146	S. F.	F	7	O	July 17 "	" 17 "	4	" ...	R ...	"
147	A. P.	M	5	R	Aug. 3 "	" 28 "	13	" ...	R ...	"
148	F. N.	M	9	L	" 27 "	Oct. 26 "	41	" ...	R ...	"
149	A. B.	M	8	J	" 19 "	Sept. 19 "	4	" ...	R ...	"
150	M. B.	F	7	M	July 19 "	" 16 "	1	" ...	R ...	"
151	M. B.	F	10	C	Aug. 21 "	Oct. 16 "	25	" ...	R ...	"
152	E. S.	F	3	C	" 28 "	" 3 "	12	" ...	R ...	"
153	W. L.	M	7	L	" 5 "	Sept. 24 "	2	" ...	R ...	"
154	H. N.	M	12	L	" 23 "	Oct. 12 "	20	" ...	R ...	"
155	L. A.	M	6	R	Sept. 8 "	" 19 "	25	" ...	R ...	"
156	C. C.	F	5	O	" 18 "	" 17 "	19	" ...	R ...	"
157	H. W.	M	6	S	" 9 "	" 16 "	15	" ...	R ...	"
158	H. K.	F	11	F	" 8 "	" 29 "	24	" ...	R ...	"
159	D. S.	F	8	C	Aug. 30 "	" 17 "	10	" ...	R ...	"
160	J. B.	M	4	C	" 28 "	" 22 "	14	" ...	R ...	"
161	A. M.	M	4	C	" 7 "	" 11 "	13	" ...	R ...	"
162	W. D.	M	7	J	Sept. 21 "	" 19 "	10	" ...	R ...	"
163	G. B.	M	7	J	" 3 "	" 28 "	16	" ...	R ...	"
164	F. C.	M	5	B	" 9 "	" 26 "	13	Laryngeal ...	R ...	"
165	F. T.	F	6	N	" 8 "	" 22 "	8	" ...	R ...	"
166	A. S.	M	8	R	Aug. 25 "	" 22 "	7	" ...	R ...	"
167	J. K.	M	3	T	Sept. 10 "	" 27 "	12	Faucial & Laryngeal	... D	"
168	D. W.	F	5	E	" 24 "	Nov. 10 "	26	Faucial ...	R ...	"
169	M. H.	M	10	H	" 4 "	Oct. 30 "	14	" ...	R ...	"
170	W. W.	M	9	K	Aug. 31 "	Nov. 3 "	18	" ...	R ...	"
171	J. N.	M	13	H	Sept. 11 "	" 6 "	10	" ...	R ...	"
172	E. P.	F	5	F	Oct. 7 "	" 1 "	5	" ...	R ...	"
173	J. D.	M	4	N	Sept. 29 "	" 6 "	8	Faucial & Laryngeal	R ...	"
174	A. A.	M	12	R	Oct. 6 "	" 5 "	7	Faucial ...	R ...	"
175	E. J.	F	10	O	Sept. 14 "	" 5 "	4	" ...	R ...	"

NORTHERN HOSPITAL.—TABLE X.—*Post-Scarlatinal Diphtheria*, 1897.

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
1	E. L.	F	4	12	June 4/96	Aug. 5/96	38	Faucial ...	R ...	No antitoxin.
2	A. W.	F	8	7	July 7 "	Oct. 12 "	10	" ...	R ...	Antitoxin.
3	F. B.	M	5	5	Sept. 15 "	" 18 "	12	" ...	R ...	"
4	F. M.	F	4	18	" 23 "	" 19 "	26	" ...	R ...	No antitoxin.
5	G. D.	F	3	17	July 10 "	" 21 "	70	Faucial & Laryngeal	R ...	Antitoxin.
6	M. C.	F	5	17	Sept. 11 "	" 23 "	16	Faucial ...	R ...	"
7	A. D.	F	11	17	June 27 "	" 25 "	93	" ...	R ...	"
8	G. C.	M	4	17	Aug. 3 "	" 25 "	32	" ...	R ...	"
9	A. O.	M	11	9	Sept. 12 "	Nov. 3 "	26	" ...	R ...	"
10	B. M.	F	7	16	Oct. 2 "	" 6 "	10	" ...	R ...	"
11	G. L.	M	7	25	" 6 "	" 9 "	4	" ...	R ...	"
12	D. R.	F	7	2	Sept. 9 "	" 13 "	27	" ...	R ...	"
13	J. D.	M	5	5	Oct. 16 "	" 16 "	6	" ...	R ...	No antitoxin.
14	M. B.	F	6	1	Sept. 28 "	" 17 "	30	" ...	R ...	Antitoxin.
15	A. C.	F	7	2	" 30 "	" 17 "	17	" ...	R ...	"
16	D. G.	F	5	1	Oct. 2 "	" 18 "	22	" ...	R ...	"
17	E. J. H.	F	6 ³ / ₄	7	Sept. 12 "	" 20 "	49	" ...	R ...	No antitoxin.
18	T. H.	M	14	9	" 25 "	" 20 "	29	" ...	R ...	Antitoxin.

NORTHERN HOSPITAL.—TABLE X.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
19	F. H.	M	5	18	Sept. 22/97	Nov. 21/97	17	Faucial & Laryngeal	R	Antitoxin.
20	W. M.	M	6	2	Oct. 8 "	" 27 "	20	Faucial	R	"
21	S. B.	M	9	25	Sept. 22 "	Dec. 3 "	44	"	R	"
22	J. B.	F	6	16	Oct. 1 "	" 6 "	40	"	R	"
23	F. S.	F	7	8	Sept. 22 "	" 8 "	40	"	R	"
24	C. R.	M	5	17	Oct. 29 "	" 8 "	13	"	R	No antitoxin.
25	J. H.	F	12	7	" 9 "	" 11 "	21	"	R	Antitoxin.
26	R. G.	F	11	5	" 8 "	" 13 "	40	"	R	"
27	L. E.	F	7	7	" 24 "	" 14 "	24	"	R	"
28	W. H.	M	6	16	Nov. 18 "	" 17 "	3	"	R	"
29	S. W.	M	5	19	Oct. 1 "	" 21 "	54	"	R	"
30	S. W.	M	4	5	" 11 "	" 27 "	47	"	R	"
31	A. M.	F	16	4	" 18 "	" 31 "	40	"	R	"
32	K. D.	F	11	8	" 8 "	" 31 "	40	"	R	No antitoxin.
33	E. G.	F	27	8	" 17 "	" 30 "	40	"	R	Antitoxin.
34	F. T.	M	9	25	" 24 "	" 30 "	35	"	R	"
35	E. T.	M	7	25	" 29 "	Jan. 1/97	22	"	R	"
36	G. M.	F	7	6	" 24 "	" 5 "	39	"	R	No antitoxin.
37	F. S.	F	13	21	" 23 "	" 1 "	41	"	R	Antitoxin.
38	W. B.	M	8	25	Nov. 19 "	" 1 "	15	"	R	"
39	V. W.	F	4	7	Oct. 6 "	" 3 "	65	"	R	"
40	M. P.	F	7	7	" 13 "	" 4 "	60	"	R	"
41	C. F.	F	10	8	Sept. 4 "	" 5 "	74	"	R	No antitoxin.
42	E. B.	F	15	8	Oct. 22 "	" 6 "	47	"	R	Antitoxin.
43	E. T.	F	7	6	" 23 "	" 7 "	41	"	R	No antitoxin.
44	L. D.	F	10	17	Nov. 1 "	" 10 "	44	"	R	Antitoxin.
45	W. B.	M	5	4	Dec. 17 "	" 13 "	4	Faucial & Laryngeal	R	"
46	E. N.	F	16	17	" 10 "	" 19 "	13	"	R	"
47	H. C.	M	8	25	" 17 "	" 19 "	5	"	R	"
48	A. T.	F	9	17	" 4 "	" 20 "	4	"	R	No antitoxin.
49	P. F.	M	3	17	" 1 "	" 20 "	28	Faucial & Laryngeal	R	Antitoxin.
50	E. P.	F	13	5	Nov. 11 "	" 21 "	16	"	R	"
51	L. B.	F	8	16	" 15 "	" 22 "	3	Faucial	R	No antitoxin.
52	J. R.	F	20	7	" 19 "	" 25 "	30	"	R	Antitoxin.
53	E. G.	F	4	6	Dec. 23 "	" 25 "	3	"	R	"
54	R. G.	F	3	21	Oct. 20 "	" 25 "	48	"	R	"
55	J. A.	F	8	7	Nov. 1 "	" 25 "	52	"	R	"
56	E. W.	M	10	11	" 11 "	" 26 "	62	"	R	"
57	L. B.	F	4	17	" 18 "	" 27 "	48	"	R	"
58	D. I.	F	9	7	" 11 "	Feb. 4 "	28	"	R	"
59	A. H.	F	12	6	Dec. 4 "	" 12 "	42	"	R	"
60	C. H.	M	3	17	Nov. 2 "	" 6 "	24	Laryngeal	R	"
61	E. H.	F	42	8	Dec. 2 "	" 5 "	31	Faucial	R	"
62	E. H.	M	12	11	Nov. 18 "	" 8 "	30	"	R	"
63	H. N.	M	5	5	Dec. 6 "	" 9 "	35	"	R	"
64	A. B.	M	8	25	" 5 "	" 11 "	35	"	R	"
65	A. P.	M	5	6	Nov. 29 "	" 9 "	67	Faucial & Laryngeal	R	"
66	H. A.	M	8	25	" 19 "	" 12 "	59	Faucial	R	"
67	C. H.	F	5	3	Jan. 2/97	" 15 "	9	"	R	"
68	E. H.	F	6	1	Dec. 25/96	" 15 "	10	"	R	"
69	M. S.	F	12	5	Jan. 4/97	" 17 "	15	"	R	"
70	N. S.	F	5	12	Dec. 4/96	" 17 "	48	"	R	"
71	M. C.	F	18	17	" 11 "	" 18 "	22	"	R	"
72	D. R.	F	4	12	Nov. 1 "	" 15 "	83	"	R	"
73	M. H. P.	F	5	19	Dec. 25 "	" 19 "	3	"	R	"
74	M. S.	F	11	12	Nov. 29 "	" 21 "	50	"	R	"
75	E. S.	F	5	20	Oct. 30 "	" 21 "	89	"	R	"
76	N. M.	F	7	16	Jan. 22/97	Mar. 1 "	12	"	R	"
77	L. W.	F	4	19	Dec. 28/96	" 2 "	45	"	R	"
78	L. D.	F	4	6	Nov. 30 "	" 2 "	68	Faucial & Laryngeal	R	"
79	A. W.	F	10	1	Jan. 3/97	" 4 "	30	Faucial	R	"
80	I. M. S.	F	7	16	Nov. 23/96	" 6 "	72	"	R	No antitoxin.
81	D. B.	F	6	3	Dec. 31 "	" 6 "	37	"	R	Antitoxin.
82	W. K.	M	4	1	Jan. 1/97	" 6 "	36	"	R	"
83	F. L.	F	16	8	" 6 "	" 6 "	10	"	R	"
84	R. M.	F	7	3	" 23 "	" 7 "	14	"	R	"
85	R. T.	M	3	18	" 28 "	" 7 "	5	Faucial & Laryngeal	R	"
86	G. A. H.	M	7	25	" 23 "	" 7 "	9	Faucial	R	"
87	D. P.	F	8	1	Dec. 26/96	" 8 "	45	"	R	"
88	R. I.	F	5	18	Jan. 2/97	" 9 "	36	"	R	"
89	A. K.	M	4	16	Feb. 2 "	" 9 "	7	Laryngeal	R	"
90	R. P.	F	9	16	Nov. 15/96	" 15 "	94	Faucial	R	"
91	R. T.	F	4	16	" 22 "	" 15 "	68	Laryngeal	R	"
92	W. G.	M	4	12	" 30 "	" 15 "	74	Faucial	R	"
93	C. J. P.	F	6	6	Jan. 18/97	" 15 "	10	"	R	"
94	G. C.	F	5	16	Nov. 8/96	" 18 "	104	"	R	"
95	E. J.	M	3	7	Feb. 8/97	" 18 "	11	Laryngeal	R	"
96	F. C.	F	5	4	" 18 "	" 19 "	3	Faucial	R	"
97	A. M.	M	4	19	Jan. 8 "	" 19 "	43	"	R	"
98	E. S.	F	3	5	" 10 "	" 20 "	31	Laryngeal	R	"

NORTHERN HOSPITAL.—TABLE X.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
99	T. B.	M	4½	16	Dec. 16/96	Mar. 21/97	95	Laryngeal ...	R ...	Antitoxin.
100	A. F.	M	4	5	Feb. 9/97	" 22 "	13	Faucial, Nasal, and Laryngeal	R ...	"
101	A. S.	M	3	1	Jan. 22 "	" 22 "	5	Faucial ...	R ...	"
102	J. H. B.	M	3	5	Feb. 15 "	" 24 "	15	Laryngeal ..	R ...	"
*103	H. H.	M	5	19	" 10 "	" 26 "	16	Faucial ...	D ...	"
104	E. W.	F	5	19	" 10 "	" 26 "	16	Laryngeal ...	R ...	"
105	M. B.	F	6	21	Dec. 31/96	" 28 "	50	Faucial ...	R ...	"
106	W. L.	M	5	19	Jan. 18/97	" 29 "	17	" ...	R ...	"
107	F. B.	F	5	17	Dec. 25/96	" 30 "	62	" ...	R ...	"
108	M. P.	F	4	17	Jan. 9/97	" 30 "	58	" ...	R ...	"
109	M. O.	F	11	4	" 24 "	" 30 "	15	" ...	R ...	"
110	R. A.	F	3	19	" 15 "	" 30 "	18	Laryngeal ...	R ...	"
111	J. W. G.	M	4	5	Feb. 23 "	Apr. 1 "	9	Faucial ...	R ...	"
112	G. G.	F	9	8	" 15 "	" 2 "	20	" ...	R ...	"
113	E. J. P.	F	6	6	Mar. 6 "	" 7 "	5	" ...	R ...	"
114	A. W.	M	9	25	Feb. 6 "	" 10 "	37	" ...	R ...	"
115	A. P.	F	15	8	" 2 "	" 11 "	46	" ...	R ...	"
116	I. W.	F	9	12	Mar. 10 "	" 11 "	9	" ...	R ...	"
117	A. N.	F	4	7	Feb. 27 "	" 12 "	12	" ...	R ...	No antitoxin.
118	L. H.	F	14	7	Mar. 11 "	" 13 "	7	" ...	R ...	Antitoxin.
119	W. D.	M	5	8	Feb. 9 "	" 17 "	35	" ...	R ...	"
120	A. R.	M	12	10	Jan. 3 "	" 19 "	60	" ...	R ...	"
121	M. B.	F	4	3	" 5 "	" 20 "	73	Laryngeal ...	R ...	"
122	C. M.	F	8	8	Mar. 2 "	" 21 "	7	Faucial ...	R ...	"
123	K. B.	F	4	3	" 22 "	" 20 "	10	" ...	R ...	"
124	E. L. H.	F	8	4	" 13 "	" 24 "	1	" ...	R ...	"
125	E. C.	F	8	17	Jan. 11 "	" 25 "	44	" ...	R ...	"
126	F. A.	F	7	6	Feb. 11 "	May 1 "	42	" ...	R ...	"
127	A. G.	M	6	25	" 24 "	" 3 "	46	" ...	R ...	"
128	J. P.	M	7	25	" 11 "	" 2 "	24	" ...	R ...	"
129	R. L.	F	5	4	" 9 "	" 3 "	43	" ...	R ...	"
130	E. C.	F	4	7	Mar. 16 "	" 3 "	27	" ...	R ...	"
131	H. K.	F	7	6	Apr. 5 "	" 4 "	4	Nasal ...	R ...	"
132	A. R.	F	8	3	Mar. 1 "	" 10 "	16	Faucial ...	R ...	"
133	N. P.	F	6	12	" 21 "	" 10 "	6	" ...	R ...	"
134	M. B.	F	17	3	" 26 "	" 12 "	18	" ...	R ...	"
135	E. C.	F	15	12	" 23 "	" 12 "	4	" ...	R ...	"
136	G. B.	M	5	17	Apr. 9 "	" 15 "	6	" ...	R ...	"
137	E. B.	F	6	12	Mar. 22 "	" 17 "	13	" ...	R ...	"
138	H. H.	M	4	6	Apr. 17 "	" 19 "	4	" ...	R ...	"
139	A. B.	F	18	7	" 11 "	" 18 "	12	" ...	R ...	"
140	J. T.	F	11	8	Mar. 19 "	" 24 "	40	" ...	R ...	"
141	F. F.	F	7	8	Apr. 21 "	" 29 "	5	" ...	R ...	"
142	J. S.	M	12	25	" 21 "	June 2 "	20	" ...	R ...	"
143	F. G.	F	5	3	Mar. 12 "	" 3 "	23	Laryngeal ...	R ...	"
144	J. W.	F	7	8	" 16 "	" 4 "	42	Faucial ..	R ...	"
145	C. C.	M	3	6	Apr. 12 "	" 7 "	23	" ...	R ...	No antitoxin.
146	A. B.	M	5	11	" 13 "	" 8 "	28	" ...	R ...	Antitoxin.
147	S. W.	F	5	8	" 27 "	" 11 "	21	" ...	R ...	"
148	E. S.	M	10	10	May 3 "	" 13 "	16	" ...	R ...	"
149	K. I. B.	F	15	17	Apr. 22 "	" 15 "	12	" ...	R ...	"
150	F. G.	F	12	3	Mar. 31 "	" 16 "	25	" ...	R ...	"
151	M. N.	F	5	17	May 15 "	" 21 "	12	" ...	R ...	"
152	J. Y.	M	14	10	" 19 "	" 22 "	19	" ...	R ...	"
153	A. S.	F	18	17	" 27 "	" 27 "	10	" ...	R ...	"
154	E. W.	F	23	17	" 28 "	" 29 "	5	" ...	R ...	"
155	M. B.	F	9	7	" 22 "	" 30 "	12	" ...	R ...	"
156	G. B.	F	7	20	June 6 "	July 1 "	5	" ...	R ...	"
157	A. J. T.	M	4	2	Apr. 14 "	" 3 "	8	Laryngeal ...	R ...	"
158	F. C.	F	17	8	" 25 "	" 4 "	40	Faucial ...	R ...	"
159	F. S.	M	8	10	May 5 "	" 6 "	40	" ...	R ...	"
160	P. B.	F	6	20	June 7 "	" 7 "	7	" ...	R ...	"
161	M. K.	F	8	5	" 15 "	" 14 "	6	" ...	R ...	"
162	E. B.	F	8	6	May 6 "	" 16 "	37	" ...	R ...	"
163	E. D.	F	4	5	June 14 "	" 16 "	9	" ...	R ...	"
164	J. W. W.	M	6	10	Apr. 26 "	" 18 "	51	" ...	R ...	"
165	D. O.	F	9	7	June 24 "	" 18 "	2	" ...	R ...	"
166	A. F.	M	12	10	" 21 "	" 19 "	4	" ...	R ...	"
167	H. K.	M	12	11	Apr. 7 "	" 19 "	81	" ...	R ...	"
168	E. W.	F	17	7	May 28 "	" 21 "	27	" ...	R ...	"
169	R. W.	M	11	10	June 8 "	" 23 "	8	" ...	R ...	"
170	F. G.	F	5	12	Jan. 13 "	" 26 "	102	" ...	R ...	"
171	E. L.	F	9	8	July 9 "	" 26 "	1	" ...	R ...	"
172	R. K.	F	9	5	June 10 "	" 26 "	20	" ...	R ...	"
173	R. J.	F	16	12	" 2 "	" 27 "	11	" ...	R ...	No antitoxin.
174	E. C.	F	9	17	Apr. 22 "	" 28 "	56	" ...	R ...	Antitoxin.

* Death due to otitis media, meningitis, and pneumonia, on May 28th, apparently unconnected with the attack of diphtheria two months previously.

NORTHERN HOSPITAL.—TABLE X.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
175	J. J. G.	M	9	11	June 15/97	July 30/97	15	Faucial ...	R ...	Antitoxin.
176	G. G.	M	10	11	July 4 "	" 31 "	4	" ...	R ...	"
177	A. B.	M	6	25	June 1 "	Aug. 5 "	35	" ...	R ...	"
178	E. H.	F	10	17	" 26 "	" 5 "	15	" ...	R ...	"
179	N. M.	F	4	17	" 10 "	" 6 "	23	" ...	R ...	"
180	C. G.	F	12	7	July 8 "	" 6 "	12	" ...	R ...	"
181	R. J. A.	M	7	10	June 19 "	" 9 "	24	" ...	R ...	"
182	E. J.	F	3	2	" 3 "	" 9 "	13	" ...	R ...	"
183	A. C.	F	5	12	" 19 "	" 10 "	11	" ...	R ...	"
184	G. H.	F	6	18	May 7 "	" 11 "	6	" ...	R ...	No antitoxin.
185	J. G.	M	7	10	July 11 "	" 11 "	6	" ...	R ...	Antitoxin.
186	A. S.	F	10	8	" 14 "	" 12 "	18	" ...	R ...	No antitoxin.
187	E. G.	M	4	2	June 28 "	" 13 "	15	Laryngeal & Faucial	R ...	Antitoxin.
188	A. P.	M	10	25	" 30 "	" 12 "	19	Faucial ...	R ...	"
189	I. L.	F	4	12	" 9 "	" 13 "	28	" ...	R ...	"
190	T. W.	M	3	17	" 11 "	" 13 "	43	Faucial & Laryngeal	... D	"
191	M. A. G.	F	20	5	July 11 "	" 14 "	4	Faucial ...	R ...	"
192	M. M. H.	F	4	5	" 2 "	" 15 "	19	" ...	R ...	"
193	J. C.	M	12	10	June 9 "	" 16 "	31	" ...	R ...	"
194	R. M.	M	12	10	July 4 "	" 16 "	20	" ...	R ...	"
195	R. B.	M	14	10	" 19 "	" 18 "	6	" ...	R ...	No antitoxin.
196	E. S.	F	8	17	" 9 "	" 18 "	6	" ...	R ...	Antitoxin.
197	C. N.	M	6	4	" 2 "	" 16 "	23	Faucial and Nasal	R ...	"
198	W. F.	M	10	10	" 8 "	" 19 "	14	Faucial & Laryngeal	R ...	"
199	C. G.	M	5	12	" 12 "	" 19 "	14	Faucial ...	R ...	No antitoxin.
200	L. H.	F	9	12	" 2 "	" 19 "	3	" ...	R ...	Antitoxin.
201	W. L.	M	13	11	" 12 "	" 20 "	8	" ...	R ...	"
202	A. B.	F	18	12	" 15 "	" 19 "	14	" ...	R ...	No antitoxin.
203	E. G.	F	4	4	June 30 "	" 19 "	26	" ...	R ...	Antitoxin.
204	W. B.	M	14	10	July 2 "	" 19 "	7	" ...	R ...	"
205	L. R.	F	12	18	" 13 "	" 21 "	15	" ...	R ...	"
206	M. M.	F	5½	1	" 12 "	" 21 "	19	" ...	R ...	"
207	A. A. F.	F	10	12	June 18 "	" 21 "	38	" ...	R ...	"
208	M. H. P.	F	6	18	July 25 "	" 23 "	5	" ...	R ...	"
209	G. S.	M	11	11	May 16 "	" 23 "	78	" ...	R ...	"
210	F. K.	M	11	10	July 1 "	" 25 "	29	" ...	R ...	"
211	A. W.	M	5	8	" 26 "	" 25 "	5	" ...	R ...	"
212	F. M.	F	17	17	June 21 "	" 25 "	34	" ...	R ...	"
213	E. H.	F	8	8	July 7 "	" 27 "	22	" ...	R ...	No antitoxin.
214	N. M.	F	13	12	" 14 "	" 28 "	8	" ...	R ...	"
215	F. A.	M	8	11	June 15 "	" 28 "	43	" ...	R ...	Antitoxin.
216	E. A. W.	F	10	8	July 16 "	" 29 "	16	" ...	R ...	"
217	O. H.	M	11	11	Aug. 2 "	" 30 "	4	" ...	R ...	"
218	E. H.	F	10	6	June 8 "	" 29 "	30	" ...	R ...	No antitoxin.
219	E. A. E. W.	F	10	18	July 19 "	" 29 "	24	" ...	R ...	"
220	E. W.	F	12	6	" 22 "	" 30 "	11	" ...	R ...	"
221	F. W.	F	4	8	" 11 "	Sept. 1 "	25	Faucial & Laryngeal	R ...	Antitoxin.
222	J. H.	M	9	10	" 21 "	" 1 "	11	Faucial ...	R ...	"
223	L. R.	F	10	7	" 17 "	" 4 "	20	" ...	R ...	No antitoxin.
224	M. A.	F	4½	1	" 2 "	" 5 "	23	" ...	R ...	"
225	A. G.	M	4	1	" 2 "	" 6 "	44	" ...	R ...	Antitoxin.
226	E. H.	F	11	18	Aug. 5 "	" 6 "	12	" ...	R ...	"
227	H. G.	M	9	11	June 29 "	" 7 "	34	" ...	R ...	"
228	F. W.	M	10	10	July 18 "	" 8 "	20	" ...	R ...	No antitoxin.
229	E. H.	M	11	11	Apr. 15 "	" 7 "	101	" ...	R ...	Antitoxin.
230	G. B.	F	5	5	Aug. 1 "	" 9 "	10	" ...	R ...	"
231	A. S.	M	6	7	July 16 "	" 8 "	26	" ...	R ...	"
232	F. H.	F	4	7	Aug. 8 "	" 10 "	10	" ...	R ...	No antitoxin.
233	R. G. H.	M	12	10	" 27 "	" 18 "	2	" ...	R ...	Antitoxin.
234	C. E.	M	7	10	" 16 "	" 19 "	3	Laryngeal ...	R ...	"
235	L. S.	F	5	7	" 11 "	" 22 "	12	Faucial ...	R ...	"
236	A. B.	M	5	7	" 6 "	" 23 "	24	Faucial, Nasal, and Laryngeal	R ...	"
237	W. S.	M	7	10	" 8 "	" 26 "	23	Faucial ...	R ...	"
238	A. W.	F	9	4	July 26 "	" 27 "	23	" ...	R ...	"
239	A. M.	F	13	4	" 20 "	" 30 "	55	" ...	R ...	"
240	S. W.	F	3	7	Aug. 4 "	Oct. 1 "	30	" ...	R ...	No antitoxin.
241	E. K. W.	F	5	12	Sept. 1 "	" 1 "	7	Faucial & Laryngeal	R ...	Antitoxin.
242	E. F.	M	10	11	June 11 "	" 1 "	85	Faucial ...	R ...	"
243	G. M.	F	4	2	Aug. 18 "	" 4 "	22	" ...	R ...	"
244	L. W.	F	16	6	" 7 "	" 3 "	32	" ...	R ...	No antitoxin.
245	E. M. L.	F	5	21	Sept. 4 "	" 5 "	8	" ...	R ...	"
246	E. S.	F	7	20	June 5 "	" 7 "	103	" ...	R ...	Antitoxin.
247	N. B.	F	14	1	Sept. 5 "	" 7 "	10	" ...	R ...	"
248	F. H.	M	12	11	Aug. 5 "	" 10 "	31	" ...	R ...	"
249	A. G.	F	4	20	" 15 "	" 13 "	7	" ...	R ...	"
250	H. M.	F	4	19	" 30 "	" 13 "	10	" ...	R ...	"
251	F. S.	M	3	4	" 20 "	" 15 "	30	Faucial & Laryngeal	R ...	"
252	G. H.	M	10	10	Sept. 7 "	" 16 "	21	Faucial ...	R ...	"
253	E. D.	F	6	7	" 21 "	" 15 "	2	" ...	R ...	No antitoxin.

NORTHERN HOSPITAL.—TABLE X.—*Post-Scarlatinal Diphtheria, 1897—contd.*

No.	Initials.	Sex	Age	Ward.	Date of Onset of Scarlet Fever.	Date of Onset of Diphtheria.	Days after Admission	Nature of Attack.	Result.	Antitoxin or not.
254	R. A.	F	6	19	Sept. 15/97	Oct. 16/97	8	Faucial ...	R ...	No antitoxin.
255	C. T.	M	13	10	Aug. 21 "	" 18 "	37	" ...	R ...	Antitoxin.
256	C. F.	F	7	19	" 25 "	" 20 "	17	" ...	R ...	"
257	M. M.	F	5	18	Sept. 20 "	" 23 "	3	" ...	R ...	"
258	F. T.	F	5	12	Aug. 30 "	" 22 "	28	" ...	R ...	"
259	G. A.	M	7	2	Sept. 15 "	" 23 "	7	" ...	R ...	"
260	D. G.	F	16	7	" 21 "	" 26 "	13	" ...	R ...	No antitoxin.
261	E. F.	F	3	20	" 28 "	" 27 "	9	" ...	R ...	Antitoxin.
262	C. L.	F	9	3	Aug. 22 "	" 27 "	39	" ...	R ...	"
263	D. B.	F	5	3	July 27 "	" 29 "	71	" ...	R ...	"
264	A. O.	M	10	16	Sept. 9 "	" 28 "	14	" ...	R ...	"
265	E. S.	F	4	17	" 25 "	Nov. 1 "	11	Laryngeal ...	R ...	"
266	F. D.	M	5	5	" 18 "	" 15 "	32	" ...	R ...	"
*267	L. C.	F	4	1	Oct. 9 "	" 23 "	11	" ...	D ...	"

* Recovery from diphtheria in this case (L.C.) appeared to be complete when the patient developed pneumonia, and died on December 19th.

General Incidence and Mortality.

There were 15,241 completed cases of scarlet fever during the year, and amongst these were 796 cases of post-scarlatinal diphtheria. This gives an incidence of 5.22 per cent., 0.58 more than last year. Since the beginning of 1895 bacteriological methods have been freely employed in the diagnosis of diphtheria in the Managers' hospitals, and it is doubtless largely owing to this fact that since that year the incidence of post-scarlatinal diphtheria has been so high. On this account also it is impossible now to institute any fair comparison between the incidence of diphtheria on the scarlet fever patients in the hospitals and its incidence on the population of London generally. As on previous occasions the two convalescent hospitals (Gore Farm Hospital and the Northern Hospital, Winchmore Hill) have furnished the larger proportion of the cases, viz., 442. In 119, or 14.9 per cent. of the 796 cases, the larynx was involved, 3.7 per cent. more than last year. The total case-mortality was 3.7 per cent., that of the laryngeal cases 8.4, and that of the remainder 2.9. These rates are extraordinarily low. Last year they were 5.1, 22.7, and 2.8 respectively; so that the lessening in the total case-mortality appears to be entirely due to the lessening in the mortality of the laryngeal cases, and not to the inclusion of a larger number of mild ("bacteriological") faucial and nasal cases.

Sex. Table XI., p. 173, shows the sex-incidence and mortality.

There were 367 cases occurring in males and 429 in females, an incidence on the total number of scarlet fever cases of each sex admitted of 5 per cent. and 5.4 per cent. respectively.

The case-mortality of the males was higher than that of the females, being 4 per cent., as against 3.4 per cent.

Age. Table XII., p. 174, shows the age-distribution of the cases, with the rates of mortality at the different ages. Of the 796 cases the majority are over five years of age, and the same observation is true of the faucial and nasal cases. But of the laryngeal cases the majority are under five years of age. In all the groups the mortality of the cases under five years of age is very low, being less than 9 per cent.

When the number of attacks at different ages, as shown in Table XII., is expressed at a percentage of the total scarlet fever admissions at the same age, it appears that the incidence is highest in the second quinquennium, viz., 6·3 per cent. It is 5·2 in the first quinquennium, and 4·7 and 2·8 in the third and fourth respectively. On all admissions of twenty years of age and upwards, the incidence is 1·1 per cent.

Time of Onset.

Table XIII., pp. 175-176, shows the time of onset dating from the commencement of the attack of scarlet fever. The greatest number of cases occur during the fifth and sixth weeks, and the weekly number is considerable up to the twelfth. One case (at the Northern Hospital) occurred as late as the twenty-eighth week. There were no deaths amongst cases arising after the eleventh week.

Season.

From Table XIV., p. 177, it appears that the greatest number of cases arose during the months of August and October, and the least during May and December. During the first quarter of the year there were 202 cases; during the second, 143; during the third, 242; and during the fourth, 199. The seasonal prevalence of scarlet fever being greater in the autumn and winter than the spring and summer, the number of cases under treatment in hospitals is also greater during these times, without there necessarily being any overcrowding. This fact may perhaps account for the greater number of post-scarlatinal diphtheria cases during the last six months of the year. The percentage incidence on the scarlet fever admissions for the four quarters of the year was as follows:—First quarter, 6·9; second, 4·5; third, 5·3; fourth, 4·4. So that, relatively, more cases occurred during the first and third quarters, and fewer during the second and fourth.

Except for the differences pointed out in the foregoing remarks, there was no alteration in the behaviour of post-scarlatinal diphtheria during 1897 as compared with 1896, and the facts of last year shed no fresh light upon its etiology. Though the introduction of bacteriology into diagnosis has been of immense benefit by facilitating the early recognition and therefore specific treatment of the disease, yet, as has been already remarked, it frustrates the making of any just comparisons between its incidence in and outside of hospitals. With the increase of diphtheria in London in 1888 post-scarlatinal diphtheria began to be noticeable in the Board's hospitals, and the same coincidence was stated to have been observed at Birmingham in 1895.* Probably as long as the disease continues to be so prevalent in the Metropolis it will be found attacking patients convalescing from scarlet fever.

E. W. G.

* Richards, *Lancet*, September 26th, 1896.

TABLE XI.—Sex, Distribution, and Mortality.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		South-Eastern.		Brook.		Gore Farm.		Northern.		Total.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Faucial and Nasal Cases.	Males ...	17	0	2	8	2	16	1	18	1	35	2	9	0	27	0	70	0	79	1	294	9	3.0
	Females ...	9	2	1	14	1	18	1	9	1	52	0	24	4	24	0	71	0	156	0	383	11	2.8
	Total ...	26	2	4	22	3	34	2	27	2	87	2	33	4	51	0	141	0	235	1	677	20	2.9
	Mortality per cent.	7.6		19.0		13.6		5.8		7.4		2.2		12.1		0		0		0.4		2.9	
Laryngeal Cases.	Males ...	3	0	0	8	0	7	2	3	0	1	0	1	0	3	0	22	3	19	1	73	6	8.2
	Females ...	2	1	0	4	0	7	0	1	0	3	0	0	0	2	0	12	1	13	1	46	4	8.6
	Total ...	5	1	0	12	0	14	2	4	0	4	0	1	0	5	0	34	4	32	2	119	10	8.4
	Mortality per cent.	20.0		12.5		0		14.2		0		0		0		0		11.7		6.2		8.4	
All Cases.	Males ...	20	0	2	16	2	23	3	21	1	36	2	10	0	30	0	92	3	98	2	367	15	4.0
	Females ...	11	3	0	18	1	25	1	10	1	55	0	24	4	26	0	83	1	169	1	429	15	3.4
	Total ...	31	3	5	34	3	48	4	31	2	91	2	34	4	56	0	175	4	267	3	796	30	3.0
	Mortality per cent.	9.6		17.2		8.8		8.3		6.4		2.1		11.7		0		2.2		1.1		3.7	

TABLE XII.—Age-Distribution.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		South-Eastern.		Brook.		Gore Farm.		Northern.		Total.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Faucial and Nasal Cases.	0-1...	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	8.5 0.0 33.3 2.7 11.7 6.7 1.1 0.0 0.0 0.0
	1 ...	1	1	1	1	1	2	0	0	0	2	0	2	0	0	0	0	0	0	0	9	3	
	2 ...	1	0	5	0	1	0	7	0	1	1	3	0	5	0	2	0	0	0	36	1		
	3 ...	1	0	5	0	2	0	2	1	3	5	0	9	2	12	0	4	0	6	51	6		
	4 ...	4	2	4	1	5	1	5	0	9	0	9	1	10	0	14	0	29	0	89	6		
	5-9...	13	0	6	1	12	0	12	0	47	0	12	1	19	0	92	0	122	1	342	4		
	10-14	5	0	3	0	3	0	3	0	11	0	1	0	3	0	28	0	58	0	117	0		
	15-19	1	0	0	0	2	0	2	0	2	0	0	0	0	0	1	0	15	0	23	0		
20 and over	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	5	0	8	0	0.0		
Total ...	26	2	21	4	22	3	34	2	27	2	87	2	33	4	51	0	141	0	235	1	677	20	2.9
Laryngeal Cases.	0-1...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8.8 0.0 33.3 9.0 7.1 7.4 7.4 12.5 0.0 0.0
	1 ...	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3	1	
	2 ...	1	0	3	0	0	0	3	0	0	1	0	1	0	1	0	4	1	10	1	11	2	
	3 ...	2	0	4	0	2	0	2	0	0	2	0	0	0	1	1	8	1	11	1	28	2	
	4 ...	0	0	2	0	2	0	4	1	2	0	0	0	0	0	1	17	9	2	41	3		
	5-9...	2	0	2	1	0	0	1	0	0	0	0	0	0	0	5	2	2	0	8	1		
	10-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	15-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20 and over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Total ...	5	1	8	1	12	0	14	2	4	0	4	0	1	0	5	0	34	4	32	2	119	10	8.4
All Cases.	0-1...	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	8.5 0.0 33.3 4.2 10.1 6.8 1.8 0.8 0.0 0.0
	1 ...	1	0	2	1	0	0	3	0	0	2	0	2	0	7	0	2	1	16	1	12	4	
	2 ...	2	0	3	0	5	0	10	0	1	10	0	3	2	13	0	8	1	40	1	47	8	
	3 ...	4	1	6	1	7	1	7	2	9	0	6	1	12	0	22	1	40	1	79	8		
	4 ...	15	2	9	1	16	1	16	0	49	0	12	1	19	0	109	1	131	1	116	7		
	5-9...	5	0	6	0	4	0	4	0	11	0	1	0	3	0	33	1	60	0	383	1		
	10-14	1	0	3	0	2	0	2	0	2	0	0	0	0	0	1	0	15	0	125	1		
	15-19	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	23	0		
20 and over	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	8	0	0	0.0	
Total ...	31	3	29	5	34	3	48	4	31	2	91	4	34	4	56	0	175	4	267	3	796	30	3.7

TABLE XIII.—Time of Onset after Commencement of Scarlet Fever—continued.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		South-Eastern.		Brook.		Gore Farm.		Northern.		Total.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
1st week ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
2nd „	2	1	1	1	1	0	2	1	0	0	3	1	2	0	3	0	0	0	0	0	15	4	23.6
3rd „	9	2	2	0	2	0	15	0	2	0	19	0	6	0	5	0	3	0	1	0	64	2	3.1
4th „	8	0	9	0	4	1	8	1	8	0	19	0	8	1	8	0	10	1	10	0	92	4	4.3
5th „	1	0	3	0	7	1	3	0	6	1	13	1	4	1	10	0	11	1	37	0	95	5	5.2
6th „	2	0	6	1	7	1	2	0	3	0	12	0	3	0	3	0	24	1	33	0	95	3	3.1
7th „	1	0	1	1	8	0	4	1	3	0	6	0	4	1	6	0	18	1	35	2	86	6	6.9
8th „	1	0	3	0	3	0	3	0	1	0	5	0	2	0	5	0	24	0	25	0	72	0	0.0
9th „	1	0	1	1	1	0	2	0	3	1	3	0	2	1	4	0	22	0	19	1	58	4	6.8
10th „	1	0	0	0	0	0	3	1	2	0	3	0	0	0	4	0	15	0	34	0	62	1	1.6
11th „	4	0	1	1	1	0	1	0	0	0	0	0	2	0	0	0	16	0	21	0	46	1	2.1
12th „	0	0	0	0	0	0	1	0	0	0	6	0	1	0	4	0	10	0	15	0	37	0	0.0
13th „	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	9	0	16	0	0.0
14th „	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	4	0	10	0	17	0	0.0
15th „	1	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	3	0	7	0	15	0	0.0
16th „	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	4	0	0.0
17th „	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	0.0
18th „	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	6	0	0.0
19th „	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0	0.0
20th „ and over	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	2	0	9	0	0.0
Total ...	31	3	29	5	34	3	48	4	31	2	91	2	34	4	56	0	175	4	267	3	796	39	3.7

All Cases.

TABLE XIV.—Seasonal Incidence.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		South-Eastern.		Brook.		Gore Farm.		Northern.		Total.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Faucial and Nasal Cases.	3	1	0	0	4	1	0	0	5	0	6	0	2	1	13	0	4	0	20	0	57	3	5.2
	5	1	1	1	0	0	0	0	3	0	7	0	0	0	10	0	6	0	16	0	50	2	4.0
	7	0	1	1	1	1	0	1	6	1	13	0	0	0	0	0	7	0	24	1	64	4	6.2
	3	0	0	0	0	0	0	0	1	0	13	0	0	0	0	0	5	0	14	0	47	0	0.0
	0	0	1	1	3	0	4	0	0	0	2	0	3	1	0	0	9	0	16	0	38	2	5.2
	5	0	1	0	3	0	6	1	1	0	3	0	4	0	1	0	11	0	13	0	48	1	2.0
	1	0	4	1	2	0	3	0	0	0	1	0	4	0	4	0	20	0	20	0	59	2	3.3
	0	0	0	0	1	1	4	1	1	1	10	0	4	1	2	0	15	0	42	0	85	3	3.5
	0	0	0	0	1	0	3	0	0	0	17	0	3	0	2	0	16	0	16	0	60	0	0.0
	0	0	0	0	2	0	8	0	5	0	6	0	1	0	6	0	19	0	29	0	77	0	0.0
	1	0	0	0	2	0	0	0	2	0	4	1	2	1	5	0	20	0	11	0	47	2	4.2
	1	0	0	0	2	0	1	0	1	0	5	1	2	0	8	0	9	0	14	0	45	1	2.2
	26	2	21	4	22	3	34	2	27	2	87	2	33	4	51	0	141	0	235	1	677	20	2.9
Laryngeal Cases.	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	6	0	0.0
	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	2	0	9	0	0.0
	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	11	0	16	0	0.0
	1	1	3	1	1	0	0	1	0	0	1	0	0	0	0	0	3	0	1	0	7	2	28.5
	0	0	0	0	1	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	9	1	11.1
	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	1	25.0
	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	5	0	0.0
	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	11	2	3	1	18	3	16.6
	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0	6	0	3	0	15	0	0.0
	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	10	1	3	0	15	1	6.6
	1	0	0	1	0	0	2	1	1	0	0	0	0	0	1	0	1	0	4	1	11	2	18.1
	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	4	0	0.0
	5	1	8	1	12	0	14	2	4	0	4	0	1	0	5	0	34	4	32	2	119	10	8.4
All Cases.	3	1	0	0	6	1	1	0	5	0	6	0	2	1	13	0	4	0	23	0	63	3	4.7
	8	1	3	1	1	0	3	0	4	0	8	0	0	0	11	0	6	0	18	0	59	2	3.3
	7	0	1	1	3	1	3	0	7	1	14	0	1	0	1	0	7	0	35	1	80	4	5.0
	4	1	1	1	1	0	3	0	1	0	14	0	7	0	0	0	5	0	15	0	54	2	3.7
	0	0	1	1	4	0	9	1	0	0	2	0	3	1	0	0	12	0	16	0	47	3	6.3
	5	0	1	1	4	0	6	1	1	0	3	0	4	0	4	0	13	1	14	0	52	2	3.8
	1	0	4	0	3	0	4	0	0	0	1	0	5	1	3	0	21	0	21	1	64	2	3.1
	0	0	7	0	2	1	5	1	2	0	10	0	4	0	2	0	26	2	45	1	103	6	5.8
	0	0	0	0	3	0	9	0	2	0	17	0	3	0	2	0	22	0	19	0	75	0	0.0
	0	0	1	0	3	0	5	0	5	0	6	0	1	0	6	0	29	1	32	0	92	1	1.0
	2	0	1	0	2	0	2	1	3	0	4	1	2	1	6	0	21	0	15	1	53	4	6.8
	1	0	3	0	2	0	2	0	1	0	6	1	2	0	9	0	9	0	14	0	49	1	2.0
	31	3	29	5	34	3	48	4	31	2	91	2	34	4	56	0	175	4	267	3	796	30	3.7

SUMMARY OF THE ANTITOXIN TREATMENT OF DIPHTHERIA DURING THE YEAR 1897.

After the elaborate reports on this subject presented to the Managers last year and the year before, it is felt to be unnecessary to occupy space with the details of the 1897 cases. But the following tables (compiled from figures supplied by the medical superintendents of the various hospitals) summarise the results. They refer to completed cases only.

TABLE I.—*All forms of Diphtheria.*

HOSPITAL.	Cases treated with Antitoxin.			All Cases; both those treated with Antitoxin and those not.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern	980	185	18·8	1,060	192	18·1
North-Western ...	632	156	24·6	913	170	18·6
Western	569	104	18·2	738	118	15·9
South-Western ...	327	90	27·5	516	95	18·4
Fountain	771	176	22·8	875	184	21·2
South-Eastern...	591	105	17·7	711	111	15·6
Brook	507	76	14·9	642	84	13·0
Park	4	4	100·0	4	4	100·0
Total	4,381	896	20·4	5,459	958	17·5

TABLE II.—*All Laryngeal Cases.*

HOSPITAL.	Cases treated with Antitoxin.			All Cases; both those treated with Antitoxin and those not.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern	88	33	37·5	90	35	38·8
North-Western ...	44	16	36·3	47	17	36·1
Western	74	14	18·9	79	16	20·2
South-Western ...	57	26	45·6	58	27	46·5
Fountain	56	15	26·7	58	17	29·3
South-Eastern ...	87	24	27·5	92	26	28·2
Brook	65	12	18·4	65	12	18·4
Park	2	2	100·0	2	2	100·0
Total	473	142	30·0	491	152	30·9

TABLE III.—*Tracheotomy Cases.*

HOSPITAL.	Cases treated with Antitoxin.			All Cases; both those treated with Antitoxin and those not.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern	38	18	47·3	39	19	48·7
North-Western ...	41	14	34·1	43	14	32·5
Western	34	11	32·3	35	12	34·2
South-Western ...	28	19	67·8	28	19	67·8
Fountain	41	14	34·1	41	14	34·1
South-Eastern ...	42	15	35·7	44	17	38·6
Brook	32	10	31·2	32	10	31·2
Park	2	2	100·0	2	2	100·0
Total	258	103	39·9	264	107	40·5

(Cases of diphtheria were admitted into the Park Hospital so late in the year that no patients had been discharged recovered before January 1st, 1898.

The results tabulated above correspond fairly closely with those of 1896. In that year the mortality of the antitoxin cases was 25·9 per cent., and of all the cases 20·8; so that the figures for 1897 show a slight improvement. A larger proportion of cases has been treated with serum, 80·2 per cent., as against 66·2 in 1896. The results in the laryngeal and tracheotomy cases were almost the same as in 1896, when the mortality of the laryngeal cases treated with antitoxin was 28·8 per cent., and of all the laryngeal cases however treated 29·6; while of the tracheotomies treated with antitoxin the mortality was 40·6 per cent., and of all the tracheotomies 41. It will be remembered that in 1894, the year just before the general introduction of the antitoxin treatment into the Managers' hospitals, the mortalities of the different classes of case were as follows:—All cases, 29·6 per cent.; all laryngeal cases, 62; all tracheotomies, 70·4.

In 491 of the 5,459 cases, or 8·9 per cent., the larynx was involved; and in 264 of the laryngeal cases, or 53·7 per cent., tracheotomy was performed. In 1896 these figures were 12·6 and 41; while in 1894 they were 12 and 56. It will thus be seen that the percentage of laryngeal cases requiring tracheotomy (calculated on the total laryngeal cases) rose to nearly the same height as it was in 1894. But the experience at the Eastern Hospital of the writer of this note gives him ground for saying that the vast majority of the tracheotomy cases are in need of the operation when they are admitted to hospital, and that it is quite the exception for a patient who, on admission, has little or no laryngeal symptoms and who is treated with antitoxin to develop urgent laryngeal obstruction afterwards, though this was by no means an uncommon event in the days before the serum treatment was introduced.

Turning now to the post-scarlatinal diphtheria cases, the most striking fact is the exceedingly low mortality of the laryngeal cases, 8·4 per cent. All the

laryngeal cases but two (which both recovered) were treated with antitoxin. Of the 796 cases of all forms of diphtheria, in 630, or 79·1 per cent., was the serum treatment employed; 26 of these cases were fatal, so that the mortality of the antitoxin cases was 4·1 per cent. These good results are most probably due chiefly to the fact that the patients are brought under treatment at an early period of the disease.

E. W. G.

DIPHTHERIA AND THE HEART.

(By ARTHUR STANLEY, M.D., B.S. Lond.)

The following observations have been made on a series of 500 cases of diphtheria during two years' work in a diphtheria ward at the North-Western Hospital. All the cases were treated by antitoxin, and all doubtful cases were verified by bacteriological examination. The total number of deaths in the series numbered 80, a death rate of 16 per cent.

A patient examined soon after the onset of diphtheria has a full and rapid pulse of fair tension; the heart's impulse is exaggerated, and the first sound good. Towards the end of the first week of the disease the toxæmic condition manifests itself. The temperature sinks and is frequently sub-normal, the rapid pulse gives place to one of moderate speed, the cardiac impulse becomes feeble and the first sound shorter; but the most noticeable feature of all is the reduced tension of the pulse. This condition of lessened heart-power continues far into convalescence, and if paralysis supervenes, may again become marked. But paralysis seldom follows when the heart has once become normal. Cases which develop paralysis almost invariably remain pale, with lowered arterial tension and altered heart-rhythm, until the knee-jerks are found to be lost and the voice nasal. In the second week of the disease, what may be called the *diphtheritic heart-condition* is well established. The patient is pale and languid, the pulse is of remarkably low tension, the wave short and ill-sustained, of moderate speed, but more frequent than the temperature would indicate, and sometimes irregular both in rhythm and force. The heart is usually of normal size, the apex beat in its normal situation, and the impulse feeble. The veins are not distended, the first sound is short, the pulmonary second sound is relatively loud, and there is very frequently reduplication of the second sound, especially on listening over the third left costal interspace.

Systolic murmurs are frequent both at base and apex, and in the carotid arteries.

Changes in the length of the pauses of the cardiac cycle are frequent, and of great importance in prognosis. The most common change is a lengthening of the short pause, giving rise to spacing of the heart-sounds. The relative lengthening of the short pause may be of all degrees up to "tic-tac" rhythm where the short equals the long pause, so that the heart-sounds are equidistant. The change in the relative lengths of the two pauses is almost always accompanied by a change in the character of the sounds, namely, the first sound of the heart comes to resemble the second in quality—the first sound losing its so-called deep muscular sound, making more audible the valvular sound which resembles the ordinary valvular

second sound. In this way the two sounds and the two intervals tend to equality. This "tic-tac" rhythm, caused by the lengthening of the first pause, indicates danger ahead—danger of heart-failure. But of worse prognosis is that condition in which, instead of the first pause being lengthened, it is shortened, so that the second sound follows very closely on the first. This condition is almost always a fatal sign, and occurs with or may be followed by sudden heart-failure.

A condition characterised by what may be termed *delayed beats* is the commonest form of irregularity of the heart's action met with in diphtheria. After a series of regular heart-beats a pause occurs, followed by a sudden scramble of two or more heart-beats, in order as it were to make up for lost time. This gives rise to an intermittent pulse, owing to the fact that during the scramble all the beats do not reach the wrist.

Heart-failure.—Sudden heart-failure is the most terrible complication of diphtheria, and one in which we are as a rule powerless in preventing death. Diphtheria is the disease *par excellence* in which sudden cardiac failure manifests itself. In comparing diphtheria with other diseases associated with peripheral neuritis, heart-failure is, with the notable exception of Beri-Beri, a rare cause of death. Heart-failure is usually made manifest by the following symptoms: pallor, vomiting, increasing weakness of the pulse, coldness of the extremities, and irregular respiration.

These symptoms occurring together almost invariably lead to a fatal termination. Heart-failure may take the form of a gradual syncope, which is nearly always fatal. The syncopal attack is marked rather by duration than by intensity; loss of consciousness is rare.

The date of onset of heart-failure is most commonly at the beginning of the second week of the disease, but it may occur during convalescence, while the subjects of diphtheritic paralysis are prone to it.

Heart-failure is always preceded or accompanied by change in the heart-rhythm. The first pause is usually shortened, so that there is a rapid sequence of the second sound after the first. This condition, as has been mentioned, is frequently preceded by spacing of the sounds. There may be "cantering" rhythm with or without heart-dilatation. Reduplication of the second sound is common, and reduplication of the first is sometimes heard. Dilatation of the heart occurs in association with heart-failure, but is not common.

A Typical Case of Sudden Heart-failure occurring early in Diphtheria.—H. C., aged 6. Onset sudden, with headache, vomiting, and sore throat on November 20th, 1897.

On admission on November 24th, the fauces were completely covered with offensive-smelling membrane, spreading forwards on soft palate. Glands moderately enlarged on both sides. General condition fair. Temperature 100°. Eight thousand units of antitoxin given. The diphtheria bacillus was yielded by a culture on blood serum.

November 26th.—Membrane separating quickly. Pulse tension low. Cardiac impulse feeble, first sound short, pulmonary second accentuated. First pause rather longer than normal. Second sound reduplicated. Knee-jerks present.

November 27th.—Membrane almost all cleared away.

November 28th.—Trace of albuminuria, Pulse tension low; boy pale.

November 30th.—When seen at 11 a.m. was going on satisfactorily, but at 12 a.m. had a sudden syncopal attack, vomiting, lips of a lilac-tinted pallor, pulse not able to be felt at wrist. First cardiac sound short, and followed very quickly by second, at a rate of 150 a minute. Three minims of liq. strychninæ were injected, but death took place an hour and a half after the first symptoms of syncope.

Case of Cardiac Failure coming on during Diphtheritic Paralysis, six weeks after Admission to Hospital.—A. C., aged $2\frac{1}{3}$. Onset October 8th, 1897, with vomiting.

On admission on October 10th, the fauces were much inflamed, with recent white membrane on tonsils. There was some stridor, considerable recession of lower thoracic wall, and slight cyanosis. Ten thousand units of antitoxin were injected. Diphtheria bacilli found.

October 11th.—Fauces heaped up with foetid membrane. Laryngeal symptoms abating. Sibili heard over both lungs. Knee-jerks present.

October 14th.—Throat clean. Trace of albuminuria. Pulse-tension low, heart-impulse feeble. First sound short, second sound reduplicated. Pulmonary second accentuated.

October 25th.—Voice becoming nasal. Knee-jerks present.

November 8th.—Voice nasal. No regurgitation. Knee-jerks lost.

November 12th.—Pulse irregular. Arterial tension diminished considerably. Short pause lengthened. Heart-sounds equally loud at apex, and of very similar character. Delayed beats occasionally; about every four beats the heart stops, and after a pause beats quickly twice in succession; at other times, after a first sound, there would be a longer pause than usual, then a second sound, followed immediately by a first sound.

November 23rd.—Occasional difficulty in swallowing solids; apt to go the wrong way. Nasal feeding adopted. Cardiac second sound accentuated and reduplicated.

November 24th.—Pulse smaller and tension lower. Heart more irregular. Getting paler.

November 25th.—Pulse scarcely felt. Heart-impulse very feeble and irregular. Second sound follows quickly on the first.

Respirations sighing and irregular. Death.

Analysis of 500 Cases of Diphtheria with regard to Fatal Heart-failure.

Total number of cases dying of heart-failure	30
Of these, vomiting was associated in	27
Well-marked dilatation of the heart in	3
Number of cases dying of heart-failure before the onset of paralysis...	22
Average day of the disease on which death took place in these cases	9.3
Number of cases dying of heart-failure after the onset of paralysis ...	8
Average day of the disease on which death took place in these cases	28
Average day of the disease on which paralysis was first detected	15.4

Dilatation of the Heart.—Well-marked signs of dilatation occurred in only 11 of the 500 cases of diphtheria. Three of these were fatal by heart-failure. The

comparative rarity of dilatation may be explained by the extremely low arterial pressure which obtains in diphtheria, for, although the heart-muscle is weak, yet even so the blood-pressure is not great enough to cause distension. The special effect of diphtheria on the heart is to produce a condition leading to defective arterial pressure, hence the low-tension pulse, and the frequency of syncopal attacks; while, when dilatation does occur, it never produces dropsy, for the same reason.

Changes in the Heart-rhythm.—These may be briefly stated as follows:—

- (1) Lengthening of the short pause, giving rise to spacing of the heart-sounds and “tic-tac” rhythm.
- (2) Shortening of the short pause, the second sound following the first rapidly, a sign of grave import.
- (3) Lengthening of the long pause, causing infrequent heart-beat and slow pulse.
- (4) “Delayed” heart-beat, occurring at rhythmic intervals.
- (5) Irregularity in force and frequency apart from above.
- (6) Reduplication of heart-sounds, especially of the second sound.
- (7) Murmurs.

It is a significant fact that disturbance of the respiratory rhythm is a frequent accompaniment of change in the cardiac rhythm—such as sighing respiration, which is a bad prognostic; very slow respirations, with a normal pause between each; quick respirations, with a long pause between each, giving rise, in a child of five years of age, to a respiratory speed of six to the minute; conditions also with a quick inspiration followed by a slow expiration; and, again, typical Cheyne-Stokes breathing.

With regard to the frequency of the heart’s action in diphtheria, the pulse-rate is, as a rule, greater than the temperature, which at the end of the first week of the disease is usually sub-normal, would indicate. In children a slow pulse is very rarely met with, but in adults it is more common; and when arterial tension also is low it indicates danger of heart-failure.

Reduplication of the second sound occurred in over 40 per cent. of the cases, and is best heard when the stethoscope is placed over the third left intercostal space, close to the edge of the sternum. Reduplication of the second sound, however, is frequently found at this situation in the normal condition in children. The first sound was reduplicated in 12 of the 500 cases. Canterng rhythm was present in a few cases, usually shortly before death, in those cases where there was also dilatation, though also in cases where there was no dilatation.

In order to understand the conclusions to be drawn from the length of the first pause of the cardiac cycle, which is so markedly altered in diphtheria, it may be instructive to consider its mechanism. In “tic-tac” rhythm, when the short pause is lengthened the ventricular systole is probably lengthened on account of the heart-power being out of proportion to the arterial resistance, but still able to cope with it; when, however, the short pause is shortened and the second sound approximates the first, it tends to show that the heart is in a still feebler condition, and is brought up short by the resistance in the arterial system. Systolic murmurs are frequent and are not due to endocarditis, but may occasionally be due to some

yielding of the mitral curtains, yet most usually come under the category of so-called "hæmic" murmurs.

Pathological Conclusions drawn from the above Clinical Facts.—Sudden heart-failure may occur at any time in the course of diphtheria, and may or may not be accompanied by paralysis. Heart-failure occurring during the first week of the disease cannot with any degree of probability be put down to disturbed innervation, for nervous tissue is comparatively slow in being acted upon by the toxin of diphtheria. The heart, in contradistinction to the skeletal muscles, partakes of the nature of an automatic mechanism, though influenced through the vagus and sympathetic nerves. No extra-cardiac trophic nerve to the heart is as yet known. Moreover, there is no evidence after death of any lesion, macroscopic or microscopic, of the immediate nerve-supply of the heart. To attribute heart-failure to a neuritis of the vagus is alike unnecessary, inadequate, and unproved.

To a certain extent heart-failure and changes in the cardiac rhythm occur in other diseases, *e.g.*, typhoid fever, and in that disease a somewhat similar condition of the heart is found *post mortem* as in diphtheria, namely, one of parenchymatous degeneration of the heart-muscle. To explain the comparative frequency of cardiac failure in diphtheria it is only necessary therefore to establish that the parenchymatous degeneration of the heart-muscle, the result of diphtheria toxin, is more extensive and general than in other toxin diseases. This is borne out by the results of *post-mortem* observation. That the toxin of diphtheria has a special predilection for heart-muscle is also borne out by the experiments on animals. Muscle is much more quickly acted upon than nerve, and hence the heart-changes occur as a rule at a much earlier date than those found in the nerves. The results of muscle-degeneration through direct action of the toxin manifest themselves before those of nerve-degeneration. The suddenness of the heart-failure does not, however, indicate a sudden lesion. In a muscular organ like the heart it is "all or nothing"; either it acts with sufficient force to maintain the circulation, or it ceases altogether, and often suddenly. The stoppage of the heart, though sudden, may therefore be really due to a gradually accumulating weakness, and this is borne out by clinical experience. That the heart-failure is not due to a general loss of vitality, but rather to a specific effect on the heart itself, is made evident clinically by the power of voluntary movement, being in remarkable contrast to the weakness of the heart, and by the clearness of the intellect even a short time before death from heart-failure.

Although a slight throat affection may be followed by death from heart-failure, yet this is certainly the exception.

Besides the action of the toxin on the heart-muscle, other parenchyma besides nerve is specially liable to be affected, as, for instance, the epithelium of the kidney.

Albumin is found in the urine in all quantities in diphtheria by the end of the first week of the disease, *i.e.*, at about the same time that the cardiac condition also manifests itself. But the affection of the two again bears no direct relation the one to the other. Granular degeneration of the kidney epithelium is present in all cases dying with marked albuminuria, and leads frequently to total suppression of urine, in which latter cases nephritis is rarely found *post-mortem*.

The kidney condition of diphtheria never gives rise to increased arterial tension; the blood-tension was lowered in every one of the 500 cases.

In conclusion, the circulatory physical signs in diphtheria point to a weakness in circulatory power, due to a degeneration of the cardiac muscle.

Results of Post-mortem Examination of the Heart.—Cases dying of cardiac failure always show pathological changes in the heart. The heart to the naked eye is usually flabby, soft, pale, wanting in lustre, and in sections it often has a greyish colour. Punctiform hæmorrhages are common in the visceral layer of the pericardium and pleuræ. Adherent *ante-mortem* clot is often found, except in those severe toxæmic cases, when the blood is of a dark chocolate colour and very fluid.

On teasing out the muscle under the microscope there may be seen small albuminous granules varying in size, which are insoluble in ether, but swell up, and become almost invisible on being treated with acetic acid, and which may be so abundant as to conceal the striation of the muscle.

The degeneration is usually general and uniformly distributed through the heart. This granular albuminous degeneration may be associated with the formation of fat-globules, which are soluble in ether and brought out by osmic acid solution; sometimes fatty degeneration only is seen, and appears to be a later stage of the granular albuminous degeneration. Sometimes granular degeneration is seen which in certain parts has gone on to fatty change. While the granular degeneration is usually general, the fatty degeneration is more often patchy. Fragmentation of the contractile substance of the muscle is frequently seen. Nothing abnormal can be discovered in the immediate extra-cardiac nerves or the nerve-endings.

ON THE DATE OF ONSET OF THE VARIOUS FORMS OF DIPHThERITIC PARALYSIS.

(By A. MILLER, M.B., B.C. Camb.)

The annexed tables and chart have reference to cases of diphtheritic paralysis which occurred at the South-Eastern Hospital among cases completed during the years 1896 and 1897. Only those cases have been included in which the date of onset of paralysis was definitely stated.

Table I. shows the number of cases in which the onset was primarily (*a*) in the muscles of the palate, (*b*) in the oculo-motor muscles, and (*c*) in the muscles of other parts, respectively, arranged according to the day of disease on which the paralysis was first observed. Thus, out of 392 cases, 185 were primarily paralysis of the palate; 197, strabismus; and 10, paralysis of other muscles.

Table II. refers to cardiac paralysis; all cases of heart-failure which were apparently of paralytic origin are included. The fatal and non-fatal cases are shown separately, and are arranged according to the date of the earliest symptoms. Out of 102 cases, 91 died and 11 recovered.

The chart shows the same facts graphically. Measurements along the base line correspond to the number of days from the onset of the disease, while the ordinates denote the number of cases which occurred at the various stages. Cases of cardiac secondary to other paralyse appear in both tables.

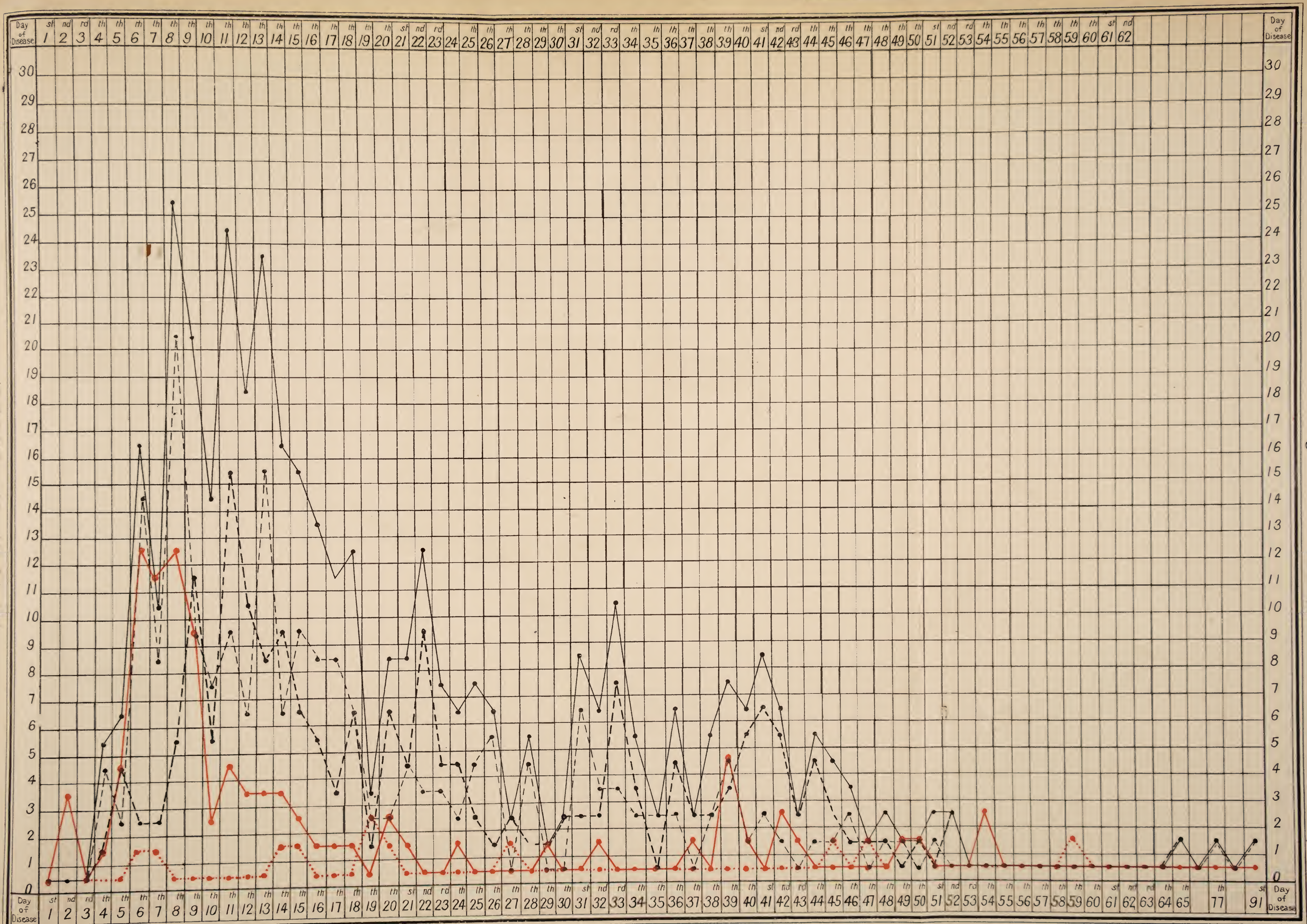
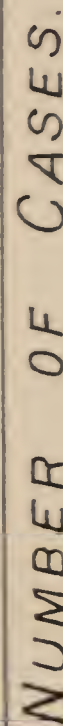
TABLE I.—Cases of Diphtheritic Paralysis (with the exception of Cardiac Paralysis)
Classified according to the Region first Affected.

Day of Disease.	Cases of Primary Paralysis of Palate.	Cases of Primary Occulo-motor Paralysis.	Cases of Primary Paralysis of other parts.	Total.	Day of Disease.	Cases of Primary Paralysis of Palate.	Cases of Primary Occulo-motor Paralysis.	Cases of Primary Paralysis of other parts.	Total.
1	...	...	...	...	Bro. for.	...	...	...	...
2	...	...	...	...	34	3	2	...	5
3	...	...	...	...	35	...	2	...	2
4	1	4	...	5	36	4	2	...	6
5	4	2	...	6	37	2	...	...	2
6	2	14	...	16	38	2	2	1	5
7	2	8	...	10	39	3	4	...	7
8	5	20	...	25	40	5	1	...	6
9	11	9	...	20	41	6	2	...	8
10	5	7	2	14	42	5	1	...	6
11	15	9	...	24	43	2	...	...	2
12	10	6	2	18	44	4	1	...	5
13	8	15	...	23	45	2	1	1	4
14	9	6	1	16	46	1	2	...	3
15	6	9	...	15	47	1	...	...	1
16	5	8	...	13	48	1	1	...	2
17	3	8	...	11	49	...	1	...	1
18	6	6	...	12	50	1	...	...	1
19	1	2	...	3	51	...	1	1	2
20	6	2	...	8	52	2	...	...	2
21	4	4	...	8	53	...	...	...	...
22	9	3	...	12	54	...	...	...	...
23	4	3	...	7	55	...	...	...	...
24	4	2	...	6	56	...	...	...	...
25	2	4	1	7	57	...	...	...	...
26	1	5	...	6	58	...	...	...	...
27	2	...	...	2	59	...	...	...	...
28	1	4	...	5	60	...	...	...	...
29	1	...	...	1	65	1	...	...	1
30	2	...	...	2	70	...	...	...	...
31	2	6	...	8	77	...	1	...	1
32	2	3	1	6	91	...	1	...	1
33	7	3	...	10					
Car. for.	...	...	..	...	Totals...	185	197	10	392

TABLE II.—Cases of Cardiac Paralysis.

Day of Disease.	Fatal Cases.	Recoveries.	Total Cases.	Day of Disease.	Fatal Cases.	Recoveries.	Total Cases.
1	...	...	...	Bro. for.	...	...	...
2	3	...	3	31	...	...	...
3	...	...	...	32	1	...	1
4	1	...	1	33	...	...	...
5	4	1	5	34	...	...	...
6	12	1	13	35	...	...	...
7	11	...	11	36	...	...	...
8	12	...	12	37	1	...	1
9	9	...	9	38	...	...	...
10	2	...	2	39	4	...	4
11	4	...	4	40	1	...	1
12	3	...	3	41	...	...	...
13	3	1	4	42	2	...	2
14	3	1	4	43	1	...	1
15	2	...	2	44	...	...	...
16	1	...	1	45	...	1	1
17	1	...	1	46	...	...	...
18	1	...	1	47	...	1	1
19	...	2	2	48	...	...	...
20	2	1	3	49	1	...	1
21	1	...	1	50	1	...	1
22	...	...	...	51	...	...	...
23	...	...	...	52	...	...	...
24	1	...	1	53	...	...	...
25	...	...	...	54	2	...	2
26	...	...	...	55	...	...	...
27	...	1	1	56	...	...	...
28	...	...	...	57	...	...	...
29	1	...	1	58	...	...	...
30	...	...	...	59	...	1	1
Car. for.	...	...	...	Totals ...	91	11	102

Chart shewing the day of the disease on which Diphtheritic Paralysis ~~followed the Coughing~~ was first observed.



All cases, exclusive of Cardiac Paralysis uncomplicated by other Paralysis, —●—●—●— *Cases of Cardiac Paralysis in which death occurred,* —●—●—●—
Cases of Primary Paralysis of the Palate. —●—●—●— " " " " " " recovery " ,.....
Cases of Primary Strabismus, —●—●—●—

A CASE OF ENTERIC FEVER: PERFORATION OF INTESTINAL
ULCER; LAPAROTOMY; SUTURE; DEATH.

(By J. S. RICHARDS, M.D. Lond., and E. W. GOODALL, M.D. Lond.)

Lillian B., a pale and neglected-looking girl, eight years of age, was admitted into the Eastern Hospital on February 19th, 1897. She was suffering from a rather sharp attack of enteric fever, having been ill some seven or eight days. There were a few rose-coloured spots on the abdomen and back; moderate abdominal distension; some bronchitis; pulse, 153; respiration, 56; temperature 103.4° Fah. The spleen could not be felt. During the next nine days there was nothing special about the case, except that the bronchitis persisted. The bowels were moved about once every twenty-four hours, the motions being light and loose. On March 1st there were no spots. During the next four days the temperature began to oscillate more than before, falling during the morning to below 100° Fah. The patient appeared better, and frequently asked for something to eat.

On March 6th two fresh spots were observed upon the abdomen, and the morning temperature was not below 100.8° Fah. The patient complained of pain in the abdomen, but it was not severe. By March 9th several more rose-spots had appeared, but the abdominal pain had gone. During these three days the temperature varied from 100° to 103° . There was no increase in the number of the motions.

On the evening of the 9th the temperature rose to 103.8° , and at 6 a.m. next morning (March 10th) to 104.4° . During the forenoon the girl complained of pain in the abdomen, which was tender but not distended. The respiration was chiefly thoracic; there was no vomiting. At 10 a.m. the temperature was 102.8° ; pulse, 128. She was ordered a mixture containing laudanum every four hours. The symptoms at this time did not point to perforation. At 2 p.m. the patient was worse. The temperature had fallen to 99.2° , but the pulse-rate had increased in frequency. The abdominal pain was more acute, and the abdomen was becoming distended. The patient was also retching occasionally. A perforation was now diagnosed. All nourishment by the mouth was stopped, except a little brandy and water with some laudanum. The patient's friends were communicated with, and their consent to any operative measures was obtained late in the afternoon. During the afternoon the patient vomited several times; at 6 p.m. she had a fifth of a grain of morphia injected subcutaneously. At 9 p.m. the abdomen had become more distended and rigid; pulse 160, but of fairly good volume. The temperature had risen to 101° . There was less abdominal pain.

At 11.30 p.m. the patient was put under chloroform, and a median incision about two and a half inches long was made into the peritoneal cavity, midway between the umbilicus and the pubes. On opening the cavity slightly turbid serum and flakes of lymph escaped. The surface of the intestines was much injected, and here and there patches of lymph adhered. The gut was moderately distended. It was only after a search of twenty minutes' duration that the perforation was discovered. It was round, and of about the diameter of a pea across. From it gas and intestinal contents escaped. There was distinct thickening

of the intestinal wall around the perforation, and there was much lymph on the peritoneum. The coil of gut in which the perforation was situated appeared to be nearly empty. The perforation was inverted, and the peritoneal surfaces on each side of it thus brought together were held in position by a few irregular sutures. Then a continuous silk suture was introduced in the longitudinal line of the gut for about two inches, the site of the perforation being in the middle of this line. The peritoneum was very soft and readily tore through. The suturing reduced the calibre of the bowel by about a third. On account of the feebleness of the patient's pulse brandy was now injected subcutaneously. The abdominal cavity was washed out with warm water as thoroughly as her condition allowed, and, a drainage tube being introduced, the wound was stitched up. The operation lasted an hour. After being put back to bed the child soon rallied and began to talk, and to call for bread and butter and something to drink. She was allowed occasional sips of brandy and water, and the nutrient enemata were continued.

The patient lived for nearly four days, dying at 6.45 p.m. on March 14th. She became much more emaciated than before the operation. The pulse, varying in rate from 120 to 160, became more and more feeble. There was vomiting at intervals. Until the 13th she was free from pain, except on two occasions, when it was slight; but on the morning of that day she appeared to be in considerable pain. The abdomen became gradually more distended, but was never excessively so. At 10 a.m. on the 11th, the temperature was 100.6° ; afterwards it fell to subnormal, and so remained to the end. One of the stitches at the lower extremity of the abdominal wound gave way on the 14th. A little sero-purulent fluid was from time to time sucked up through the drainage tube, but it was never offensive. The nutrient enemata were retained up to the morning of the 13th.

A *post-mortem* examination was made at 3.30 p.m. on March 16th. There was great wasting. The abdomen was tumid, and discoloured from *post-mortem* changes. The abdominal wound was gaping at the site of the lower two stitches. There was a little fluid pus in Douglas's pouch, and thickish layers of purulent lymph on the right side of the pouch, extending to the right iliac fossa, and covering one or two coils of intestine. There was no faecal material present in the peritoneal cavity, and no fetor. There was one marked adhesion of coil to coil, causing a rather sharp kink in the gut, but this was remote from the site of the perforation, which was lying just below and to the right of the umbilicus. On pulling the injured gut up a few soft adhesions gave way, and a few bubbles of gas and a bead of yellow faecal material were seen to escape from a point to one side of the line of suture. This point was subsequently ascertained to be a second perforation occurring in a different ulcer from that in which the first perforation had taken place. The line of suture was about two inches long, running slightly obliquely in the axis of the gut. There was no escape of gas or faeces from the original perforation at any point along the line of suture. A drop of pus welled up from a small hole in the peritoneum, nearly opposite the second perforation on the other side of the line of suture. Very few of the stitches appeared to have cut through the tissues. There was little or no lymph thrown out round the sutures. The gut was markedly constricted, but gas and fluid readily passed through the narrowed portion. On opening the gut there was seen a ridge two inches long, and projecting about a quarter of an inch into the interior of the bowel. It

corresponded to the line of suture, and was surmounted at its middle by an ulcer rather smaller across than a sixpenny piece. To one side of this was found a second and apparently recent ulcer, involving the mucous, submucous, and muscular coats, at the bottom of which was a funnel-like perforation along the line of one of the stitches, large enough to admit a knitting-needle. This was the second perforation described above. A second stitch lay exposed in the floor of this ulcer, and a third could be felt beneath the mucous membrane higher up. On the other side of the ridge a small collection of pus, the size of a small pea, was seen beneath the mucous membrane, which was intact. There would thus appear to have been around the stitches some formation of pus, which on one side had given rise to a perforation along the stitch in the floor of the second ulcer, but on the other side had not penetrated the mucous membrane. Not one of the stitches appeared to have originally wounded the mucous membrane, though, owing to the softened state of the peritoneum at the time of the operation, the needle had to be dipped somewhat deeply. The original perforation was situated in the ileum, thirty inches above the ileo-cæcal valve. There were numerous ulcers in the small intestine, the highest at a distance of fifty-six inches from the valve. They were mostly transverse in direction, presented clean bases, and in many of them the peritoneum was exposed. There were, however, three or four ulcers in which sloughs still remained, and which appeared of more recent date than the rest. There was a comparatively small area of ulceration about the valve and the few inches of the ileum just above it. There were numerous ulcers throughout the large intestine as far down as the sigmoid flexure. The mesenteric glands were enlarged. The peritonitis was more or less limited to the lower half of the abdomen, though there was lymph on the surface of the spleen. The transverse colon was distended, and the descending colon and sigmoid flexure full of rather firm fæces. The rest of the organs were normal.

J. S. R.

Remarks.—This operation, performed by Dr. Richards, was undertaken with the hope of saving a patient, the victim of a complication of enteric fever which, if left to itself, is practically always fatal. As the patient lived for nearly four days after the operation, her death was certainly not hastened thereby. According to Dr. Finney, in a paper read to the Johns Hopkins Medical Society last year (see abstract in *Lancet*, July 10th, 1897), laparotomy had up to that time been performed for a perforating enteric ulcer 47 times, with 13 recoveries. As far, however, as the United Kingdom is concerned, I am aware only of six published cases, exclusive of the case now reported; of these six, one recovered. In another published case laparotomy was performed for symptoms of a perforating ulcer, but nothing was found to account for the symptoms. This patient also recovered.

In the case now under consideration there are four points worthy of note. Firstly, though the perforation occurred nearly at the end of the fourth week of the disease, yet the patient was by no means convalescent. As a matter of fact, both the clinical and the *post-mortem* evidence went to show that a recrudescence of the disease had taken place or, as it were, a relapse overlapped the primary attack. This is by no means an uncommon occurrence in enteric fever, but it is one that unfortunately militates against the success of any operative measure. Secondly, it was only after a search of at least twenty minutes' duration that the perforation

was found; usually it is found more readily. I noted at the time of the operation that it was impossible to tell, either by the touch or the sight, the position of any ulcers with the exception of two, one of them being that in which the perforation had occurred. Yet at the autopsy many ulcers were found. Thirdly, at the autopsy there were no signs of repair. On the contrary, both in the gut and at the wound in the abdominal wall there was evidence of loss of vitality in the tissues. In this respect the case differs from those collected by Dr. Finney, for he states that in all of them healing was taking place. Doubtless the condition of recrudescence mentioned above was the cause of this loss of vitality. Fourthly, one of the stitches had involved another ulcer which lay close to the one that had perforated, and in this second ulcer perforation had taken place. The result was not affected by this occurrence, which, however, must always be borne in mind as being likely to lead to a failure of the operation. On these two latter accounts (want of immediate attempts at repair and presence of neighbouring ulcers), I think it would be better in a similar case to bring the perforated bowel out through the abdominal wound and there to leave it for the chance of future treatment, rather than at the time to attempt any resection or suturing.

The following are the names of the operators in the published cases to which I alluded above:—Bland Sutton (Clin Soc. Trans., vol. xxvii.); Allingham (quoted by Bowlby); Parkin (of Hull, *British Medical Journal*, January 26th, 1895); Bowlby (Med. Chir. Trans., vol. lxxx.); Dalziel (of Glasgow, Report of City of Glasgow Fever Hospital, 1897), two cases. Bowlby's case recovered. He also operated in the case in which nothing was found to account for the symptoms that led to the diagnosis of perforation.

E. W. G.

A NOTE ON THE ÆTIOLOGY OF NECROSIS OF THE JAW IN SCARLATINA.

(By H. F. MANTELL, M.B. Lond.)

In a series of 12,230 consecutive cases of scarlatina treated at the Western Hospital, there were 19 in which the bone in the upper or lower jaw became necrosed. These cases here collected and epitomised show the type of the disease which predisposes to this necrosis, and the factor which actually determines it. It is to be noted that between 70 and 80 per cent. of the cases of scarlet fever were transferred to the convalescent hospitals at about the 25th day of disease; the series is therefore of little value in showing how the condition may occur in the later stages. The first 16 cases being closely allied, are grouped together; the 17th occurred in a different type of case and in a later stage of the disease; whilst the 18th and 19th are added for the sake of completeness, and are merely coincidences of two distinct pathological conditions, *i.e.*, scarlet fever and alveolar abscess.

Cases 1 to 16.—These cases were all under seven years of age, were of the septic type, and had a common factor determining the jaw necrosis, *viz.*, mechanical injury. In all the faucial inflammation was severe, and the stomatitis general, going on to ulceration, sometimes in one place, sometimes in another. In all there

was considerable glandular enlargement, and profuse, and long-continued, nasal discharge. In 11, inflammation had spread to both middle ears before death. In nine, there was a septic rash observed in the second or third week. In six, there was septic broncho-pneumonia, and in two, pyæmic arthritis. The necrosis began in the height of the acute stage close to the symphysis of the lower jaw, rarely also in the corresponding portion of the upper jaw. It thus started in that region most liable to injury on forcibly opening the mouth, and the sequence of events which led to it was as follows. The throat and mouth were, of necessity, frequently cleansed and food given at frequent intervals. The patient actively resisted this treatment. The fangs of the milk teeth being slender, and the gums swollen, the spatula, the nozzle of the syringe, the mouthpiece of the feeder, and the finger introduced to swab the mouth, loosened the teeth and detached the gums. Streptococcal infection from the inflamed mucous membrane now spread between gum and tooth to the alveolar periosteum, and in no case did the bone become exposed by ulceration through the gum. In those cases which survived, the sequestrum came away some time between the eighth and eleventh week of the disease, the body of the jaw was not involved, and the effect on the permanent dentition is unknown.

Case 1.—C. R., aged 3. Severe faucial ulceration—ulceration of lips and of gums posteriorly. Rhinitis. Double suppurative otitis. Broncho-pneumonia. Septic rash 18th day. Central incisors of lower jaw loose about 14th day. Four lower incisors dropped out on 19th day, and alveolar process became bare. Death on 25th day. There was probably pus in both ankle-joints at time of death.

Case 2.—G. W., aged 3. Severe faucial ulceration—ulcers on soft and hard palate and on tongue. Rhinitis. Broncho-pneumonia. Lower incisors dropped out on fifth day. Septic rash 14th day. Alveolar process exposed 14th day. Death on 18th day.

Case 3.—A. K., aged 3. Severe faucial ulceration—ulcer on gum near the symphysis. Rhinitis. Double suppurative otitis. Bronchitis. Arthritis. Two left lower incisors dropped out on tenth day. Septic rash 14th day. Sequestrum involving alveolar process of four lower incisors removed in 11th week. Recovery.

Case 4.—A. S., aged 5. Severe faucitis. General stomatitis. Rhinitis. Double suppurative otitis. Septic rash in second week. Lower incisors loose in second week and alveolar process bare. Rigors. Death on 18th day. Smith's gag was used early when the throat was cleansed.

Case 5.—E. C., aged 3. Severe faucial ulceration—ulcers on lips and gums. Rhinitis. Double suppurative otitis. Broncho-pneumonia. Septic rash in second week. Lower incisors on left side loose in second week. Sequestrum involving alveolar process of all the lower incisors removed in the ninth week. Recovery.

Case 6.—R. H., aged 3. Severe faucial inflammation. Rhinitis. Double suppurative otitis. Lower incisors loose in second week. Alveolar process in front of lower jaw exposed in fourth week. Death in fourth week.

Case 7.—A. Z., aged 3. Severe faucitis. Nasal regurgitation. Ulceration of lips and gums. Rhinitis. Double otitis. Septic rash 17th day. Alveolar process bare around symphysis in fourth week. Death in 11th week. No sequestrum.

Case 8.—C. McK., aged 4. Severe faucitis—ulceration of lips and gums. Rhinitis. Double suppurative otitis. Broncho-pneumonia. Septic rash in second

week. Sequestrum involving alveolar process of left lower incisors removed in 11th week. Recovery.

Case 9.—A. H., aged 3. Severe faucitis soft and hard palate ulcerated. Rhinitis. Double suppurative otitis. Two left lower incisors dropped out in second week, and their alveolar process bared. Date of removal of sequestrum not noted. Recovery.

Case 10.—P. J., aged 4. Severe faucitis—ulceration on palate. Rhinitis. All lower incisors dropped out and alveolar process exposed on 14th day. Pyæmic arthritis. Death in third week.

Case 11.—E. H., aged 3. Severe faucitis. Rhinitis. Double suppurative otitis. Arthritis. In the fifth week the alveolar process corresponding to the lower incisors was bare. Date of removal of sequestrum not noted. Recovery.

Case 12.—H. F., aged 2. Severe faucial ulceration. Nasal regurgitation. Rhinitis. Double otitis. Septic rash in third week. Sequestrum involving alveolar process of lower jaw removed in eighth week. Recovery.

Case 13.—M. H., aged 3. Severe faucitis. Rhinitis. Broncho-pneumonia. Ulcerative stomatitis of lips and gums. Septic rash in second week. Alveolar process of both upper and lower jaw corresponding to incisor teeth bare in second week. Death in second week.

Case 14.—G. J., aged 4. Severe faucitis. Rhinitis. Alveolar process corresponding to all the incisors in the lower jaw and the two central incisors in the upper jaw laid bare in second week. Pyæmic arthritis. Date of removal of sequestra not noted. Recovery.

Case 15.—J. R., aged 3. Severe faucitis. Ulceration of soft palate, lips, and gums. Rhinitis. In second week a piece of bare bone on palatine process of superior maxilla. Removal of sequestrum not noted. Recovery. This was probably caused by the point of nozzle of a syringe or by a spatula.

Case 16.—W. P., aged 5. Severe faucitis. Nasal regurgitation. Ulceration of lips and gums. Rhinitis. Double suppurative otitis. Broncho-pneumonia. Lower incisors loose in the second week. Sequestrum involving alveolar process of lower incisors removed during the third month. Recovery.

In Case 17, the onset was mild. The fauces soon became healthy. General ulcerative stomatitis began in the fourth week. An ulcer below the lower central incisors exposed bone in the sixth week, and death occurred in the tenth week.

In Case 18 there was suppuration around a carious molar, the alveolar process was bared, and there was pus in the antrum of Highmore.

In Case 19 there was at the onset an alveolar abscess around a carious tooth, and the jaw eventually became bared.

ACUTE SUPPURATIVE PERITONITIS ASSOCIATED WITH SCARLATINAL NEPHRITIS.

(By G. THORNTON, M.D. Edin.)

The two cases recorded below illustrate a fatal termination which is very unusual in scarlet fever. For on looking over the records of some 7,000 cases of the disease treated in the Fountain Hospital during the past four years,

amongst whom nearly 300 cases of nephritis occurred, these two cases only of associated peritonitis were noted. I have been unable to find any record of a similar case elsewhere. Dr. Allchin, in vol. iii. of Allbut's "System of Medicine," states that peritonitis may occur in association with nephritis, or independent of it, in scarlet fever. Most of those who have had much experience in fever hospitals have seen cases of peritonitis in scarlet fever, but there is no reference to the association of peritonitis with nephritis. Hence I have thought it might be of interest to record these cases.

William B., aged 4 years; admitted with scarlet fever on November 25th, 1895, which was, according to the history, the fourth day of the disease. The attack was one of considerable severity, and, owing to ulceration of the fauces, followed by acute suppurative otitis. The temperature remained up until the 19th day. Two days later, December 6th, the patient had a slight rigor, and the temperature rose again to 102° Fah.; next morning both blood and albumen were present in the urine in considerable quantity. For the next two days the temperature ranged from 102° to 103° Fah., but on the five succeeding days the characteristic "spiking" of the chart, seen in so many cases of nephritis, was well marked, the daily range being from 103° or 104° to 98°. The amount of urine passed during that period was from 14 to 16 ozs. daily; there was always much albumen, but a varying quantity of blood. On December 14th the notes state: "the patient has evidently a good deal of pain in the abdomen, which is very distended and tympanitic; urine a dark porter colour, 10 ozs.; pulse quick, but of good tension; first cardiac sound thumping." On December 15th: "pain in abdomen continues, much tympanites and some tenesmus; much diarrhœa, no blood in motions and none in urine to-day; pulse very quick and fluttering; apex of heart displaced outwards; patient very prostrate; temperature 101° to 102°." On December 16th: "very restless night; much diarrhœa, stools yellow and fluid; pulse 180 and very feeble; pain in abdomen, which is very distended and tympanitic; temperature 99°; death at 5 p.m.; temperature at 4 p.m., 106·4°."

On *post-mortem* examination on the following day, both kidneys found to be engorged with blood and swollen. The abdominal cavity contained 12 ozs. of purulent fluid. There was much lymph on the surface of the liver and spleen, with some matting of the intestines. Many small hæmorrhages and patches of congestion found in the mucous membrane of both the large and small intestine. There was neither perforation of the gut, nor apparent affection of the appendix. The lungs were hyperæmic; there was no excess of fluid in the pericardial or pleural sacs.

Richard B., aged 6 years; admitted with scarlet fever on December 12th, 1895, this being the fourth day of the disease. The attack was but a mild one; by the 19th day the patient was on ordinary diet, and apparently convalescent. On the 24th the child looked ill, was pallid and puffy about the eyes, and on examination of the urine much albumen but no blood was found; there was no rise of temperature. Next day the child was very sick; passed but little urine, loaded with albumen, but no blood; temperature still normal. On December 27th it was noted that there was but little sign of improvement; sickness still troublesome; very little urine being passed, and no specimen obtained. December 28th.—Extremities cold; pulse very feeble. December 29th.—Still very bad; little, if any, urine being passed; temperature 101° to 102°. December 30th.—Temperature still up; seems to have

pain in abdomen, which is distended and tympanitic; no urine passed during the last 24 hours; severe diarrhœa, with some blood in motions; slight hæmatemesis also; death at 3 p.m.; temperature $104\cdot4^{\circ}$.

On *post-mortem* examination: kidneys swollen and somewhat congested; purulent fluid and flakes of lymph in abdominal cavity; patches of congestion and a few hæmorrhages in small intestine; no perforation of gut or apparent affection of appendix; no fluid in pleural cavities; lungs engorged; slight excess of fluid in pericardium.

It is curious that both these cases should have occurred in the same month, within a few days of each other. The peritonitis in both cases was associated with, and followed, acute nephritis, than which no other cause could be made out. Its occurrence seems to point strongly to the probability of the nephritis having been a "septic" nephritis, as distinct from the ordinary glomerular nephritis of scarlet fever; and both having been the result of secondary infection with pyogenic organisms, rather than to the effect of the true scarlatinal virus. I regret that neither a bacteriological nor histological examination of the organs was made, but at that time the hospital was not equipped with the apparatus necessary for such work.

SEPTIC OSTEITIS OF LEFT HUMERUS, COMPLICATING SCARLET FEVER.

(By MARY F. SINCLAIR, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas.)

The following case, which was under my care last year at the North-Eastern Hospital, is, I think, worth recording as a rare and serious complication of scarlet fever.

F. M., aged 6 years, was admitted to the North-Eastern Hospital on May 21st, 1897, suffering from a well-marked attack of scarlet fever, which had commenced suddenly five days previously. The fauces were swollen and ulcerated, there was considerable enlargement of the glands on both sides of the neck, and profuse watery rhinorrhœa.

During the next few days her symptoms, if anything, increased in severity. The fauces continued very dirty and foul-smelling; double conjunctivitis developed, and the right ear, which commenced to ache on the 24th, began to discharge on the 27th.

May 28th.—Albumen appeared in the urine, nourishment was administered with difficulty, and the patient seemed very weak.

June 1st.—About an ounce and a half of foul-smelling pus was let out from an abscess in the left side of the neck. Fauces looking cleaner.

June 9th.—Child more fretful. Some fulness and tenderness about the left shoulder. During the last six days the temperature has risen to about 102° each evening, falling to 99° in the morning.

June 11th.—It being impossible to satisfactorily examine the left shoulder, owing to the great tenderness of the part and consequent restlessness of the child, she was put under chloroform for the purpose of exploring the joint, a diagnosis of septic arthritis being made.

When, however, the patient had been anæsthetised, and one was able properly to examine the part, there was found to be distinct thickening of the surgical neck of the left humerus as compared with that of the other side, while there was no obvious excess of fluid in the shoulder-joint. The diagnosis was consequently altered to one of acute para-epiphysitis, for the relief of which, with Dr. Cuff's assistance, I did the following operation.

An incision one and a half inches in length was made on the outer aspect of the arm, commencing just below the acromion process. This exposed the great tuberosity of the humerus, the periosteum covering which was inflamed and readily detached. The underlying bone was discoloured and easily penetrated with a large gouge. At a depth of half an inch pus appeared in the cancellous tissue, which was freely removed until the walls of the bony cavity were quite clean and free from any sign of suppuration. The medullary canal was not opened during the operation.

The wound was dusted with iodoform and packed with strips of sterilised gauze, the forearm being placed across the front of the chest and retained in that position with a bandage.

On dressing the arm next day I found a hard swelling, about the size of a walnut, on the posterior aspect of the humerus, just below the level of the operation wound. This, which was a sub-periosteal collection of pus, I opened under chloroform on the following morning, a probe passing into it from the upper wound between the periosteum and the bone. A counter-opening was made for drainage, and at the same time the hole in the great tuberosity was deepened with a gouge, there being signs of suppuration about its floor.

After this second operation the patient's general condition began to improve, and two days later her temperature ceased to rise above normal. The subsequent history is one of uninterrupted progress towards recovery. She left the hospital on August 5th with the wound in the arm quite healed, and no impairment in the movements of the limb.

A CASE OF GLANDERS.

(By A. D. P. HODGES, M.D. Lond.)

Benjamin D., aged 50, carman, admitted to the South-Eastern Hospital on 23rd October, 1897, certified suffering from enteric fever. The history brought with the patient was as follows:—

October 15th.—Had influenza, with headache, diarrhœa, lasting a week; delirium, five days. Left ankle swollen and painful.

October 22nd.—Incision into ankle. History obtained later from his friends:—Illness began suddenly on October 4th with pain in left ankle. He has been ill ever since, but getting worse for about a week. No history of injury (horse-bite, scratch, &c.). He has had partial care of his horses.

Condition on Admission.—No rash or abdominal distension. Tongue dry, brown, and fissured. Delirious. Third finger of R. hand swollen and inflamed. Dirty, dark, bloody discharge from incision over L. ankle; joint disorganised. Temperature 104°.

October 24th.—Free oozing of sanious discharge from L. ankle; R. third finger much swollen, with blebs, and rapidly becoming gangrenous. Other smaller centres are—a bleb on dorsum of R. foot; small fluctuating swelling over R. tibia; nodule on R. thigh, another on L. arm, about the size of a pea. A cultivation and smear specimen taken from the bleb on the R. foot showed numerous slender bacilli. Patient in typhoid condition. Diarrhœa. Heart-sounds faint, no bruit. Bronchitis, bronchial breathing at R. apex. Great tremor. Gums spongy, sordes, no nasal discharge.

October 25th.—Inflammatory swelling on R. elbow, near olecranon. Gangrene of finger well marked. Several more blebs and nodules, from which were obtained bacilli similar to those previously seen. High fever. Rapid breathing.

October 26th.—Fresh blebs on L. elbow, R. ankle, and right side of face; fresh nodules on R. leg and L. hand. Comatose. Bloody discharge from R. eye. No nodule distinguished on conjunctiva.

October 27th.—Face much swollen, eyes closed, blebs suppurating, some having hæmorrhage into them; all have some surrounding angry-looking infiltration. Bloody nasal discharge, chiefly from R. nostril. Numerous papules and subcutaneous nodules, the older ones fluctuating and containing pus, some sanious. The same bacilli found. Nodules vary in size from a pea to a pigeon's egg. Many more small flat blebs. General condition much worse. Died at 7.40 p.m., remaining comatose till the end.

In cultivation on blood serum, the colonies were watery in 24 hours, and afterwards turned yellowish in colour. Most of them were nearly pure, and contained the same bacillus. Nearly pure cultures were obtained on potato, and resembled the characteristic glanders growth, being first yellowish and honey-like; afterwards of a deep brown colour, darker in the centre.

The bacilli in fresh specimens were fairly numerous, but lay singly or in pairs, and stained readily with watery fuchsine. A specimen of pus was sent to Dr. Washbourn, who confirmed the diagnosis of "glanders."

On *post-mortem* examination, the L. ankle-joint and distal joints of R. third finger disorganised; the cartilages and synovial membrane mostly destroyed. Contents dark and liquid, consisting of pus and altered blood. Nodular deposits in the lungs, varying in size from a pea to a millet seed, most numerous near R. apex, but scattered sparsely everywhere. Some were breaking down, others greyish and hard, others dark red. They were easily felt, but were not visible from the external surface. A little pneumonia at R. apex. Much œdema of both lungs. Old adhesions of pleuræ and pericardium.

Throat, &c.—Small nodules on epiglottis, pharynx, larynx, trachea, and bronchi, in and under mucous membrane, scattered sparsely. One larger one in the uvula, breaking down. No deposit could be seen on nasal mucous membrane.

One white miliary nodule on lower palpebral surface of R. conjunctiva.

A few minute white nodules scattered over mucous membrane of large intestine, chiefly in its lower part. Patches of submucous hæmorrhage.

Skin.—Numerous small abscesses, the four largest the size of a pigeon's egg down to that of a large pea. Many that appeared to be in the cellular tissue proved on dissection to be in the superficial layer of the muscles. Also many nodules still hard, and greyish white on section. A fair number of blebs; the larger ones

very irregular in shape, flat-topped, with surrounding infiltration; the smaller ones more numerous, irregularly rounded, flat; no central depression. Contents serous, sanious or purulent. The abscesses contained sometimes thick yellow pus, sometimes sanious pus or grumous fluid.

Cultivations from the lung showed the presence of the glanders bacillus.

SERUM DIAGNOSIS OF ENTERIC FEVER.

(By R. G. KIRTON, M.B. Lond.)

For some time past the test commonly known as "Widal's reaction" has been made use of in the diagnosis of enteric fever.

Since November, 1896, I have, as far as possible, tried this reaction in all cases certified enteric fever. I have also used it as a help in the diagnosis of doubtful cases.

The blood is obtained from the lobule of the ear usually in capillary tubes. These are sealed up, and so may be tested at a convenient time. Sometimes discharged patients have sent their blood on blotting paper. The blood when tested is then extracted from the blotting paper by means of normal saline solution.

A culture of typhoid bacilli on agar or gelatine of some weeks' age is kept, and from this peptone beef tubes are inoculated. These peptone beef tubes are incubated for about 18 hours at 37° C. A drop of the young culture of typhoid bacilli so obtained is examined under the microscope to see that they are motile, and that there is no clumping. If this be so, the specimens of blood are then tested with it.

The method I have most commonly used is to take a drop of the blood serum to be tested, and dilute it by means of a platinum loop with normal saline solution to a strength of one in ten. A drop of this diluted blood serum is then placed on a clean coverslip, and a drop of the same size of the culture is added. The two drops are thoroughly mixed together, the coverslip is inverted over a hollow glass slide, and then examined under the microscope. Should there be no sign of reaction within half to three-quarters of an hour, I have considered the test as giving a negative result.

If the motility of the bacilli be lost almost at once, and at the same time good clumping take place, I have considered the reaction as strong. If the reaction take some time and the clumps be poor, but quite definite, I have considered the reaction as weak. The difference between the two reactions, strong and weak, is best observed when testing several specimens of blood. If the blood serum of healthy individuals or patients not suffering from enteric fever be added undiluted to the culture of typhoid bacilli, in some cases the motility of the bacilli is lost, and a species of clumping takes place; but, as far as my experience goes, this reaction should not be mistaken for a positive one.

I append tables of—

- (i.) Enteric fever cases proving to be so *post mortem*, or of which the clinical symptoms pointed to a diagnosis of enteric fever. Where a *post-mortem* examination was made, "P.M." has been noted against the case.

To this table I have added a few cases which were stated to have had enteric fever at some varying period previously.

(ii.) Cases sent in as enteric fever which proved not to be so *post mortem* or of which the symptoms, &c., did not warrant a diagnosis of enteric fever.

(iii.) A number of cases of other diseases, together with a certain number of cases apparently healthy.

Here I may mention that I had the opportunity of testing the blood from—

- (1) A fœtus of six months.
- (2) Two full-term infants (one stillborn).

Of these three, the blood from the stillborn infant gave the reaction; the blood of the fœtus and that of the other full-term infant gave a negative reaction. The blood of the three mothers in each instance gave a positive reaction.

TABLE I.—*Enteric Fever.*

Date of Admission.	Initials.	Age.	Sex.	Severity of Case	Date when blood was taken.	Day of Disease when blood was taken.	Stage in Disease.					Reaction. Positive. Negative. + = -	Remarks.
							Pyrexia.	Relapse.	Convalescence.	No. of Days, if any, Temperature normal since acute stage or last Relapse.	No. of Days, if any, before Temperature became normal.		
Sept. 3/96	E. M.	5	M	S	Nov. 24/96	87	No	...	Yes	41	...	+	Blood now tested about every three months, April /98.
					Dec. 13 "	106	"	...	"	60	...	+	
					" 29 "	122	"	...	"	76	...	+	
" 5 "	S. M.	8	F	M	Nov. 24 "	83	"	...	"	36	...	+	
" 5 "	F. S.	29	M	M	" 24 "	94	"	I.	"	28	...	+	
					Dec. 5 "	105	"	I.	"	39	...	+	
" 6 "	J. S.	12	F	M	Nov. 21 "	78	"	...	"	37	...	+	
" 6 "	A. A. S.	5	F	S	Dec. 1 "	91	"	...	"	31	...	+	
					" 13 "	103	"	...	"	43	...	+	
					Jan. 13/97	134	"	...	"	74	...	+	
" 8 "	C. I.	26	F	VS	Nov. 18/96	82	"	I.	"	12	...	+	Developed scarlet fever Dec. 31/96. Blood sent on blotting paper every few months.
					Jan. 22/97	147	"	I.	"	77	...	+	
					Nov. 24 "	...	"	...	...	...	...	+
Nov. 14 "	C. D.	15	M	M	" 24/96	81	"	...	Yes	28	...	+	
					" 27 "	84	"	...	"	31	...	+	
" 23 "	J. S.	21	M	M	" 24 "	81	"	...	"	28	...	+	
Oct. 6 "	G. R.	14	M	M	" 24 "	65	"	...	"	33	...	+	
					Dec. 5 "	76	"	...	"	44	...	+	
Nov. 6 "	B. R.	15	F	M	Nov. 24 "	41	Yes	I.	No	...	8	+	
					Dec. 29 "	76	No	I.	Yes	27	...	+	
					Jan. 14/97	92	"	"	"	43	...	+	Developed diphtheria. Died Jan. 2/97. P.M. Recent healed Typhoid ulcers.
					" 1/98	...	"	"	"	...	...	+
" 7 "	H. C.	18	F	M	Nov. 18/96	24	Yes	...	No	...	6	+	
					" 24 "	30	"	...	"	...	...	+
					" 27 "	33	No	...	Yes	3	...	+	
					Dec. 13 "	49	"	...	"	19	...	+	
					Jan. 7/97	74	"	...	"	44	...	+	
" 14 "	E. H.	4	M	M	Nov. 25/96	25	Yes	...	No	...	...	+
Blood taken	½ hour after death.		"	"	Jan. 2/97	...	...	...	...	...	...	+
"	4 hours		"	"	" 2 "	...	...	...	...	...	...	+
Nov. 17/96	F. C.	12	M	M	Nov. 24/96	24	Yes	...	No	...	8	+	Weak reaction. Sent as stain on blotting paper.
					Jan. 6/97	67	No	...	Yes	35	...	+	
" 17 "	M. S.	21	F	S	Nov. 20/96	11	Yes	...	No	...	11	-	
					" 21 "	12	"	...	"	...	10	+	
					" 24 "	15	"	...	"	...	7	+	
					Jan. 19/97	71	No	I.	Yes	33	...	+	
					Feb. 2 "	85	"	"	"	...	...	+
					Mar. 15 "	126	"	"	"	...	...	-
					Apr. 23 "	...	"	"	"	...	...	-
												-	

M—Mild, S—Severe, VS—Very Severe,

TABLE I.—Enteric Fever (continued).

Date of Admission.	Initials.	Age.	Sex.	Severity of Case.	Date when blood was taken.	Day of Disease when blood was taken.	Stage in Disease.					Positive. + = - Reaction. + -	Remarks.
							Pyrexia.	Relapse.	Convalescence.	No. of Days, if any, Temperature normal since acute stage or last Relapse.	No. of days, if any, before Temperature became normal.		
Nov. 25/96	P. S.	15	M	M	Nov. 25/96 Dec. 1 „ Jan. 13/97 „ 26 „ Feb. 2 „ Mar. 4 „	12 18 61 74 81 111	Yes „ No „ „ „ I I. I. I.	No „ Yes „ „ „ 18 31 38 68	13 7	+ + + + + -	Stain on blotting paper.
„ 25 „	A. D.	23	F	?	Nov. 26/96	5 wk.	Yes	?	No	...	20	+	
„ 26 „	S. S.	29	M	M	Jan. 13/97	12 wk.	No	...	Yes	28	...	+	
„ 26 „	B. A.	10	F	S	Nov. 27/96 Jan. 6/97 Nov. 26/96 Jan. 14/97	18 58 9 58	Yes No Yes No	No Yes No Yes	... 33	7	+ + + +	Developed scarlet fever and diphtheria, Dec. 12/96. Pyrexia still present.
Dec. 4 „	G. S.	26	M	S	Feb. 27 „	...	„	...	„	...	...	+
					Mar. 21 „	...	„	...	„	...	...	+
					Apr. 5 „	...	„	...	„	...	...	+
					Dec. 5/96	11	Yes	...	No	...	34	+	
„ 14 „	W. W.	33	M	M	Jan. 19/97	56	No	? I.	Yes	11	...	+	Pure culture of typhoid bacilli obtained from pus, taken from periosteal abscess.
„ 18 „	R. S.	34	M	M	Feb. 24 „	92	„	I.	„	47	...	-	
„ 22 „	A. G.	13	F	M	Dec. 14/96	17	Yes	...	No	...	12	+	
„ 24 „	G.H.G.	14	M	S	Jan. 26/97	60	No	...	Yes	31	...	+	
„ 26 „	M.E.G.	7	F	M	Feb. 2 „	67	„	...	„	38	...	+	
Sept. 24 „	NurseG.	...	F	M	Dec. 18/96	13	Yes	...	No	...	17	+	
Jan. 2/97	F. D.	21	F	VS	Feb. 22 „	17	No	...	Yes	...	13	+	
„ 7 „	J. H.	20	F	M	Feb. 2/97	59	No	...	Yes	29	...	+	
„ 13 „	W. M.	30	M	M	Dec. 22/96	17	Yes	? I.	No	...	10	+	
„ 20 „	A. H.	6	F	M	Feb. 6/97	63	No	? I.	Yes	36	...	+	
„ 21 „	R. V.	8	F	M	„ 13 „	70	„	? I.	„	43	...	+	
„ 28 „	C. W.	32	M	M	Dec. 24/96	11	Yes	...	No	...	14	+	
Feb. 12 „	L. W.	29	F	M	Feb. 6/97	55	No	I.	Yes	12	..	+	
					Mar. 12 „	89	„	I.	„	46	...	+	
					Dec. 26/96	8	Yes	...	No	...	8	+	
					Feb. 13/97	57	No	...	Yes	41	...	+	
					Nov. 24/96	69	„	...	„	1 month	...	+	
					Jan. 25/98	...	„	...	„	...	...	+
					„ 2/97	15	Yes	...	No	...	14	+	
					Feb. 6 „	50	„	I.	„	...	3	+	
					„ 23 „	67	„	II.	„	...	6	+	
					Mar. 1 „	73	„	II.	„	...	...	+
					„ 11 „	83	No	II.	Yes	10	...	+	
					Apr. 2 „	105	„	II.	„	32	...	+	
					May 29 „	162	„	II.	„	89	...	+	
					Jan. 7 „	13	Yes	...	No	...	11	+	
					Feb. 6 „	43	No	...	Yes	19	...	+	
					„ 24 „	61	„	...	„	37	...	+	
					Jan. 13 „	9	Yes	...	No	...	6	+	
					Feb. 6 „	33	No	...	Yes	18	...	+	
					Jan. 21 „	15	Yes	...	No	...	15	+	
					Feb. 7 „	32	No	..	Yes	2	...	+	
					Mar. 10 „	63	„	...	„	33	..	+	
					Jan. 21 „	6	Yes	...	No	...	8	+	
					Feb. 7 „	23	No	...	Yes	9	...	+	
					Mar. 11 „	55	„	...	„	41	...	+	
					Jan. 29 „	10	Yes	...	No	...	4	+	
					Feb. 6 „	18	No	...	Yes	4	...	+	
					Mar. 10 „	50	„	...	„	36	...	+	
					Feb. 12 „	8	Yes	...	No	...	12	+	
					„ 13 „	9	„	...	„	...	11	+	
					„ 17 „	13	„	...	„	...	7	+	
					„ 20 „	16	„	...	„	...	4	+	
					Mar. 1 „	25	No	...	Yes	5	...	+	
					„ 10 „	34	„	...	„	14	...	+	
					Apr. 1 „	56	„	...	„	36	...	+	

M—Mild, S—Severe, VS—Very Severe,

TABLE I. — *Enteric Fever (continued).*

Date of Admission.	Initials.	Age.	Sex.	Severity of Case.	Date when blood was taken.	Day of Disease when blood was taken.	Stage in Disease.					Reaction. Positive. = = Negative. + -	Remarks.
							Pyrexia.	Relapse.	Convalescence.	No. of days, if any, Temperature normal since acute stage or last Relapse.	No. of days, if any, before Temperature became normal.		
Feb. 8/97	N. B.	8	F	S	Feb. 10/97	9	Yes	...	No	...	14	+	*Pyrexia probably due to ear disease.
					23 "	22	"	...	"	...	1	+	
					Mar. 10 "	37	"	...	"	...	...	+
					Apr. 2 "	60	No	...	Yes	...	...	+
					" 15 "	73	"	...	"	...	...	+
					" 29 "	87	"	...	"	...	...	+
					Feb. 10 "	4	Yes	...	No	...	14	+	
					" 23 "	17	"	...	"	...	1	+	
					Mar. 10 "	32	No	...	Yes	14	...	+	
					Apr. 2 "	55	"	...	"	37	...	+	
					Feb. 15 "	10	Yes	...	No	...	11	+	
					" 23 "	18	"	...	"	...	3	+	
					Mar. 10 "	33	No	...	Yes	12	...	+	
					Apr. 14 "	68	"	...	"	47	...	+	
					Mar. 5 "	7	Yes	...	No	...	2	+	
					" 10 "	12	No	...	Yes	3	...	+	
					Apr. 2 "	35	"	...	"	26	...	+	
					" 14 "	47	"	...	"	38	...	+	
					Mar. 5 "	7	Yes	...	No	...	10	+	
					" 10 "	12	"	...	"	...	5	+	
					Apr. 2 "	35	No	...	Yes	18	...	+	
					Mar. 7 "	12	Yes	...	No	...	18	+	
					" 31 "	36	No	...	Yes	6	...	—	
					Apr. 1 "	37	"	...	"	7	...	—	
					" 6 "	42	"	...	"	12	...	—	
					" 8 "	44	"	...	"	14	...	+	
					" 14 "	50	"	...	"	20	...	+	
					" 29 "	65	"	...	"	35	...	+	
					May 14 "	80	"	...	"	50	...	+	
					Mar. 10 "	17	Yes	...	No	...	15	+	
					" 31 "	38	No	...	Yes	6	...	+	P.M. = Enteric. Died Mar. 25/98. Blood taken P.M., 42 hours after death. Retested Jan. 20/98. + Died April 2. P.M. = Enteric.
					Apr. 15 "	53	"	...	"	21	...	+	
					" 28 "	66	"	...	"	34	...	+	
					Mar. 12 "	11	Yes	...	No	...	24	+	
					" 31 "	30	"	...	"	...	5	+	
					Apr. 15 "	45	No	...	Yes	10	...	+	
					" 29 "	59	"	...	"	24	...	+	
					Mar. 20 "	20	Yes	...	No	...	...	+
						P.M.	...	...	...	...	...	+
					" 27 "	15	Yes	...	No	+	*Retested Jan. 30/98. +
						P.M.	...	...	...	...	...	+
					Apr. 23 "	14	Yes	...	No	...	29	+	
					" 28 "	19	"	...	"	...	24	+	
					June 1 "	53	No	...	Yes	10	...	+	
					July 5 "	87	"	...	"	44	...	+	
					" 31 "	113	"	...	"	70	...	+	
					May 10 "	8	Yes	...	No	...	7	+	
					June 1 "	30	No	...	Yes	15	...	+	
					" 14 "	43	"	...	"	28	...	+	
					July 13 "	72	"	...	"	57	...	+	*Tested 4½ months after.
					June 10 "	10	Yes	...	No	...	17	+	
					" 26 "	26	"	...	"	...	...	+
					July 5 "	35	"	I.	"	...	4	+	
					" 31 "	61	No	I.	Yes	22	...	+	
					Sept. 2 "	94	"	I.	"	55	...	*+	
					June 17 "	12	Yes	...	No	...	32	—	
					" 23 "	18	"	...	"	...	26	+	
					" 26 "	21	"	...	"	...	23	+	
					July 5 "	30	"	...	"	...	14	+	
					" 31 "	56	No	...	Yes	12	...	+	Tested Jan. 24/98.
					" 28 "	6	Yes	...	No	...	9	+	
					" 31 "	9	"	...	"	...	6	+	
					Aug. 14 "	10	"	...	"	...	28	+	
					Oct. 17 "	74	No	I.	Yes	11	...	+	
					Nov. 4 "	92	"	I.	"	29	...	+	
					Aug. 19 "	16	Yes	...	No	...	...	+
												+	
												+	
												+	

M—Mi'd. S—Severe. VS—Very Severe.

TABLE I.—*Enteric Fever (continued).*

Date of Admission.	Initials.	Age.	Sex.	Severity of Case.	Date when blood was taken.	Day of Disease when blood was taken.	Stage in Disease.					Reaction. Positive. = = Negative. + -	Remarks.
							Pyrexia.	Relapse.	Convalescent.	No. of days, if any, Temperature normal since acute stage or last Relapse.	No. of days, if any, before Temperature became normal.		
Aug. 19/97	K. W.	9	F	?	Oct. 11/97	..	No	..	Yes	..	..	+	Had scarlet fever (concurrent).
„ 23 „	G. H.	36	M	VS	Sept. 2 „	14	Yes	..	No	..	..	* +	Retested Jan. 30/98 + P.M. = Enteric.
„ 28 „	H. B.	28	M	M	„ 12 „	29	„	..	„	..	7	+	
„ 29 „	H. S.	23	M	M	„ 16 „	33	„	..	„	..	3	+	
„ 31 „	C. K.	17	M	M	Nov. 17 „	89	Yes	..	„	..	13	+	
„ 31 „	C. K.	17	M	M	Sept. 12 „	20	No	..	Yes	? 52	..	* -	* Tested Jan. 24/98.
Sept. 1 „	J. H.	33	M	M	Oct. 20 „	58	Yes	..	No	..	4	+	
„ 2 „	E. M.	43	F	VS	Sept. 15 „	22	No	..	Yes	34	..	+	
„ 6 „	A. G.	8	M	M	„ 9 „	37	„	..	„	8	..	+	Blood taken 17 hours after death. P.M. = Enteric.
„ 6 „	A. M.	16	M	M	„ 15 „	19	Yes	..	No	..	4	+	
„ 6 „	A. M.	16	M	VS	Oct. 28 „	62	No	..	Yes	39	..	* +	* Tested Jan. 21/98.
„ 9 „	J. O'C.	19	M	P M	Sept. 12 „	15	Yes	..	No	..	..	+	P.M. = Enteric.
„ 9 „	A. H.	9	M	M	„ 14 „	17	„	..	„	..	..	* +	* Taken at P.M.
„ 10 „	G. E.	12	M	M	„ 9 „	12	Yes	..	No	..	15	+	Retested Jan. 21/98.
„ 13 „	J. D.	31	M	M	„ 9 „	12	„	..	„	..	16	+	
„ 16 „	W. B.	13	M	M	„ 12 „	8	„	..	„	..	8	+	
„ 21 „	T. S.	7	M	?	Oct. 30 „	56	No	..	Yes	40	..	+	Tested Jan. 21/98.
„ 21 „	T. S.	7	M	?	Sept. 13 „	12	Yes	..	No	..	10	+	
„ 21 „	T. S.	7	M	?	Nov. 30 „	90	No	I.	Yes	35	..	+	Retested Jan. 24/98.
„ 21 „	T. S.	7	M	?	Sept. 16 „	11	Yes	..	No	..	9	+	
„ 21 „	T. S.	7	M	?	„ 21 „	24	No	..	Yes	..	..	+	Came in practically convalescent.
„ 21 „	N. N.	17	F	M	Oct. 17 „	50	„	..	„	..	..	+	Tested Jan. 30/98.
„ 21 „	N. N.	17	F	M	„ 28 „	61	„	..	„	..	..	+
„ 21 „	A. V.	18	F	S	Sept. 21 „	12	Yes	..	No	..	17	+	Tested Jan. 31/98.
„ 21 „	A. V.	18	F	S	Oct. 17 „	38	No	..	Yes	9	..	+	
„ 21 „	A. V.	18	F	S	Nov. 16 „	68	„	..	„	39	..	+	Tested Jan. 31/98.
„ 21 „	A. V.	18	F	S	Sept. 21 „	14	Yes	..	No	..	14	+	
„ 22 „	W. W.	9	M	S	Oct. 17 „	40	No	..	Yes	12	..	+	Tested Jan. 31/98.
„ 22 „	W. W.	9	M	S	Nov. 22 „	76	„	..	„	48	..	+	
„ 22 „	M. W.	12	F	S	Sept. 22 „	7	Yes	..	No	..	20	+	Tested Jan. 31/98.
„ 22 „	M. W.	12	F	S	Nov. 10 „	56	No	..	Yes	29	..	?	
„ 22 „	A. W.	8	M	S	Dec. 6 „	82	„	..	„	55	..	-	Tested Jan. 30/98.
„ 22 „	A. W.	8	M	S	Sept. 22 „	28	Yes	..	No	..	5	+	
„ 22 „	A. W.	8	M	S	Oct. 17 „	53	No	..	Yes	20	..	+	Tested Jan. 30/98.
„ 22 „	A. W.	8	M	S	Nov. 9 „	76	„	..	„	43	..	+	
„ 22 „	A. W.	8	M	S	„ 22 „	89	„	..	„	56	..	+	Developed scarlet fever Dec. 18.
„ 22 „	A. W.	8	M	S	Sept. 22 „	6	Yes	..	No	..	41	+	
„ 23 „	M. M.	11	F	M	Feb. 1/98	..	..	..	..	..	..	-	Tested Jan. 31/98.
„ 23 „	M. M.	11	F	M	Sept. 23/97	7	Yes	..	No	..	27	+	
„ 23 „	C. B.	18	M	S	Oct. 17 „	31	„	..	„	..	3	+	Discharged Dec. 11/97, well. Re-admitted with scarlet fever.
„ 23 „	C. B.	18	M	S	Nov. 6 „	51	No	..	Yes	17	..	-	
„ 23 „	C. B.	18	M	S	Dec. 6 „	81	„	..	„	47	..	-	Tested Jan. 30/98.
„ 23 „	C. B.	18	M	S	Sept. 23 „	14	Yes	..	No	..	15	+	
„ 24 „	E. G.	22	F	M	Feb. 1/98	..	..	..	..	..	..	-	Tested Jan. 30/98.
„ 24 „	E. G.	22	F	M	„ 27 „	..	..	..	..	..	..	-
„ 24 „	A. L.	16	F	M	Sept. 24/97	20	Yes	..	No	..	5	+	Tested Jan. 31/98.
„ 24 „	A. L.	16	F	M	Oct. 17 „	43	No	..	Yes	18	..	+	
„ 26 „	M. W.	..	F	VS	„ 28 „	54	„	..	„	29	..	+	P.M. = Enteric.
„ 26 „	M. W.	..	F	VS	Sept. 24 „	23	Yes	..	No	..	3	+	
„ 28 „	E. B.	19	F	M	Oct. 28 „	57	No	..	Yes	31	..	* +	* Pyrexia next day. Relapse. Tested end of Jan., 1898.
„ 28 „	E. B.	19	F	M	Sept. 26 „	9	Yes	..	No	..	..	+
„ 28 „	E. B.	19	F	M	Oct. 8 „	21	..	..	..	..	..	+	* This was blood taken P.M. and tested Jan. 21/98. Blood putrid. P.M. = Enteric.
„ 28 „	E. B.	19	F	M	Sept. 28 „	15	Yes	..	No	..	13	+	
„ 28 „	E. B.	19	F	M	Oct. 17 „	34	No	..	*	6	..	+	
„ 28 „	E. B.	19	F	M	Nov. 6 „	54	„	I.	Yes	6	..	+	
„ 28 „	E. B.	19	F	M	„ 26 „	74	„	I.	„	26	..	+	
„ 28 „	E. B.	19	F	M	Dec. 6 „	81	„	I.	„	36	..	+	
Oct. 2 „	E. H.	34	M	VS	Oct. 2 „	8	Yes	..	No	..	..	+
Oct. 2 „	E. H.	34	M	VS	„ 16 „	22	..	..	..	..	..	* -

M—Mild.

S—Severe.

VS—Very Severe,

TABLE I.—Enteric Fever (continued).

Date of Admission.	Initials.	Age.	Sex.	Severity of Case.	Date when blood was taken.	Day of Disease when blood was taken.	Stage in Disease.					Reaction. } Positive. + = Negative. - =	Remarks.
							Pyrexia.	Relapse.	Convalescence.	No. of days, if any, Temperature normal since acute stage or last Relapse.	No. of days, if any, before Temperature became normal.		
Oct. 8/97	L. J.	25	F	M	Oct. 10/97	26 wk.	Yes	...	No	...	5	—	P.M. = Enteric ; but see below.
					" 12 "	"	"	...	"	...	3	—	
					" 15 "	"	"	...	"	...	...	—
					" 20 "	"	No	...	Yes	5	...	—	P.M. = Enteric. Tested Jan. 24/98. Tested Jan. 17/98.
" 9 "	E. L.	59	F	S	Nov. 6 "	"	Yes	...	...	...	...	—
					" 7 "	P.M.	...	...	...	...	...	—
					Oct. 9 "	"	Yes	...	No	+	P.M. = Enteric. Tested Jan. 24/98. Tested Jan. 17/98.
					" 17 "	"	"	...	"	...	...	+
				P M	" 29 "	"	...	...	"	...	...	+
" 16 "	H. T.	14	M	M	" 16 "	"	Yes	...	No	...	17	+	P.M. = Enteric. Tested Jan. 17/98.
" 18 "	C. S.	27	M	VS	Jan. 19/98	97	No	...	Yes	69	...	+	
" 20 "	L. C.	32	F	P M	Oct. 18/97	10	Yes	...	No	...	...	+
				M	" 30 "	30	+	Tested Jan. 24/98.
					" 20 "	12	Yes	...	No	...	13	+	
					Nov. 6 "	29	No	...	Yes	4	...	+	
" 23 "	E. L.	...	F	VS	Dec. 15 "	68	"	...	No	43	...	+	Tested Jan. 30/98.
					Oct. 23 "	15	Yes	...	No	...	22	+	
					" 31 "	23	"	...	Yes	6	...	+	
					Nov. 20 "	43	No	...	Yes	+	*Weaker reaction than previously. P.M. = Enteric. Tested Jan. 20/98.
					" 23 "	46	Yes	I.	No	...	10	+	
					Jan. 21/98	105	No	I.	Yes	49	..	*+)	
" 31 "	W.B.	34	M	VS	Oct. 31/97	12	Yes	...	No	+	In this case the temperature fell to normal, and remained down from about Nov. 27. On Oct. 26 and 27 she had rigors and a high temperature. These attacks simulated an attack of ague. In one the temperature shot up to 106·8°.
" 13 "	I. N.	...	F	P M	Nov. 7 "	19	...	...	...	...	...	+
				S	Oct. 15 "	10	...	...	...	...	...	—
					" 17 "	—	Tested Jan. 30/98. Came in practically convalescent. Died Nov. 4/97. See below. See below. See below. * Probably about 15th day. Tested Jan. 20/98, Reaction weaker. Reaction weaker still.
					" 18 "	...	...	...	...	...	...	—
					" 19 "	...	...	...	...	...	...	—
					" 20 "	...	...	...	...	...	...	—
					" 21 "	...	...	...	...	...	...	—
					" 23 "	...	...	...	...	...	...	—
					" 25 "	...	...	...	...	...	...	—
					" 27 "	...	...	...	...	...	...	—
					" 30 "	...	...	...	...	...	...	—
					" 31 "	...	...	...	...	...	...	—
					Nov. 1 "	...	...	...	...	...	...	—
					" 6 "	...	...	...	...	...	...	—
					" 9 "	...	...	...	...	...	...	—
					" 11 "	...	...	...	...	...	...	—
					" 12 "	...	...	...	...	...	...	—
					" 13 "	...	...	...	...	...	...	—
					" 14 "	...	...	...	...	...	...	—
					" 15 "	...	...	...	...	...	...	—
					" 16 "	...	...	...	...	...	...	—
					" 17 "	...	...	...	...	...	...	—
					" 18 "	...	...	...	...	...	...	—
					" 19 "	...	...	...	...	...	...	—
					" 21 "	...	...	...	...	...	...	—
					" 22 "	...	...	...	...	...	...	—
					" 24 "	...	...	...	...	...	...	—
					" 25 "	...	...	...	...	...	...	—
					" 27 "	...	...	...	...	...	...	—
					Dec. 1 "	—	Tested Jan. 30/98.
					" 11 "	...	...	...	...	...	...	—
Nov. 1 "	W. C.	22	M	M	Nov. 1 "	23	...	...	...	...	...	+
" 1 "	J. W.	30	M	VS	" 1 "	10	Yes	...	No	+	See below.
" 8 "	E. S.	8	F	S	" 8 "	7	"	...	"	...	23	+	
" 9 "	G. L.	23	M	M	" 9 "	14	"	...	"	...	5	+	
" 9 "	J. T.	17	F	M	" 9 "	6	"	...	"	...	8	+	See below.
" 10 "	A. P.	6	F	S	" 10 "	6	"	...	"	...	17	+	
" 10 "	J. L.	16	M	M	" 11 "	8	"	...	"	...	10	+	
					Jan. 10/98	68	No	...	Yes	50	...	+	* Probably about 15th day. Tested Jan. 20/98, Reaction weaker. Reaction weaker still.
" 8 "	A. H.	10	F	S	*Dec. 15/97	?	Yes	...	No	...	5	+	
					" 17 "	?	"	...	"	...	3	+	
					" 20 "	?	"	...	"	...	...	+
					Jan. 17/98	?	No	...	Yes	28	...	+	
					Feb. 1 "	?	"	...	"	43	...	+	

M—Mild, S—Severe, VS—Very Severe,

TABLE II.—Other Diseases certified Enteric Fever.

Date of Admission.	Initials.	Disease.	Reaction.	Remarks.
Oct. 31/96	E. C.	Pneumonia	—	
Nov. 4 "	E. F.	Tuberculous Peritonitis	—	P.M.
" 4 "	W. G.	Pyæmia	—	
" 26 "	S. F.	Morbus Cordis	—	
Dec. 4 "	J. T.	Perityphlitis	—	
" 4 "	S. L.	Influenza, Pneumonia	—	
" 14 "	E. L.	Pleurisy	—	
Jan. 7/97	S. W.	Pneumonia	—	
" 29 "	E. J.	"	—	
Feb. 9 "	L. B.	"	—	
" 18 "	J. G.	Constipation, ? Perityphlitis	—	
" 18 "	M. S.	Ulcerative Endocarditis, Suppurative Peritonitis	—	P.M.
" 19 "	M. H.	Chronic Bronchitis	—	
Mar. 24 "	H. C.	Pneumonia	—	
" 17 "	L. C.	Gastro-Enteritis	—	
" 29 "	W. P.	Chronic Ear Disease, Septicæmia	—	P.M.
June 8 "	G. L.	Pneumonia	—	
" 12 "	A. C.	Febricula	—	
" 14 "	R. S.	Tonsillitis	—	
" 24 "	S. J.	Febricula	—	
" 29 "	M. B.	Middle Ear Disease, Cerebral Abscess... ..	—	P.M.
July 26 "	M. B.	Pneumonia	—	P.M.
" 10 "	J. C.	"	—	
" 30 "	E. D.	Diphtheria, Cellulitis of Leg	—	
Sept. 4 "	M. K.	Miliary Tuberculosis	—	P.M.
" 15 "	A. W.	Appendicitis	—	
Oct. 7 "	M. D.	Relapsing Perityphlitis	—	
" 9 "	M. P.	Phthisis	—	Tubercle Bacillus found in Sputum.
" 28 "	F. L.	Broncho-Pneumonia	—	P.M.
" 28 "	W. L.	" "	—	P.M.
Nov. 8 "	W. W.	Pneumonia	—	P.M.
" 24 "	A. W.	" "	—	
Dec. 18 "	W. C.	Febricula	—	
" 14 "	A. W.	General Tuberculosis	—	P.M.
" 30 "	W. S.	Urinary Disease	—	

TABLE III.—Results in Other Diseases.

Diphtheria	7	Neg. R.
Scarlet Fever	17	"
Tonsillitis	1	"
Rheumatism	1	"
Gastro-Enteritis	1	"
Influenza	1	"
Puerperal Fever	1	"
Healthy... ..	19	From B. H.
	48	

In Table I., consisting of 101 cases of enteric fever, there are three which did not give a positive reaction :—

- (i.) J. S., admitted September 6th, 1896. This case should be omitted, as the blood was not tested till the 78th day of disease. The patient was then on the point of discharge. In some cases by this time the blood has lost its power of giving the reaction.
- (ii.) L. J., admitted October 8th, 1897 ; died November 7th, 1897. From the history, symptoms, and *post-mortem* appearance, this patient came in practically convalescing from enteric fever. The cause of death was a general peritonitis, proceeding from disease of the right fallopian tube.
- (iii.) I. N., admitted October 13th, 1897. This was considered a case of enteric fever on clinical evidence. The personal history also pointed

to the same conclusion. The patient was a shop-girl, and in the same shop two other girls fell ill about the same date of a disease diagnosed as enteric fever.

In three cases the blood was taken daily from the day of admission until December 22nd, 1897. These specimens of blood were tested during January, 1898, with the exception of those taken on the days of admission, and these were tested soon after admission:—

- (i.) E. S., admitted November 8th, 1897; discharged January 21st, 1898. The blood of November 22nd and 23rd, 1897, was not tested. The attack was severe. The day of admission corresponded to the seventh day of disease. The temperature fell to normal on December 2nd, 1897, and remained down. The blood gave a strong reaction throughout this period, but got weaker towards the end. The blood taken on the day of discharge gave a still weaker but positive reaction.
- (ii.) J. T., admitted November 8th, 1897; discharged January 8th, 1898. The attack was mild. The day of admission corresponded to the sixth day of disease. The temperature fell to normal on November 18th, 1897, and remained down. The blood gave a strong reaction throughout. The blood taken on the day of discharge gave a weaker reaction than previously, but still a strong reaction.
- (iii.) A. P., admitted November 10th, 1897; discharged January 8th, 1898. The blood of November 16th, 18th, 21st, and December 4th was not tested. The attack was severe. The day of admission corresponded to the sixth day of disease. The temperature fell to normal on November 28th, and remained down. The blood of December 3rd and 5th gave only a weak reaction. The rest gave a strong reaction.

As far as possible the blood was taken on the day of admission in all cases.

CONCLUSIONS.

(a) Briefly, it may be stated that “Widal’s reaction” is usually obtained in cases suffering from enteric fever, whether the case be mild or severe. Conversely, it is not obtained in cases suffering from other diseases; but those cases which had recently had enteric fever might prove exceptions.

(b) That the reaction is obtained earlier in some cases than others. The earliest date on which it may be obtained is difficult to ascertain, as cases do not usually come in within the first week.

Three cases did not give the reaction at first, but gave it afterwards:—

M. S., admitted November 17th, 1896	Reaction negative, 11th day.
	Reaction positive, 12th day.
H. K., admitted June 17th, 1897	Reaction negative, 12th day.
	Reaction positive, 18th day.
A. U. S., admitted December 4th, 1897	Reaction negative, 14th day.
	Reaction positive, 16th day.

One case (A. E., admitted February 8th, 1897) gave the reaction on the fourth day, *i.e.*, the day of admission.

(c) That the blood retains its power of giving the reaction for a variable time, but finally loses it; maybe in a few months, or after some years.

In Table I., at present there are eight cases which have lost the reaction.

In Table IA., J. Ba. had given the reaction in August. The remaining three, giving a negative reaction, had not had Widal's test applied previously.

Occasionally during the period that the blood gives the reaction it has been lost for a time. See L. W., admitted February 12th, 1897; C. S., admitted March 7th, 1897. In both these cases the temperature had been normal for some days and remained down.

(d) That the blood, taken *post mortem* from cases which have shown the reaction during life, may retain the power of giving the reaction.

Referring to Table I., there are fifteen cases where the blood was taken *post mortem*. Only one of them did not give the reaction. In this case, however, the blood was not tested for three months, and was then putrid (*vide infra*).

(e) That severe cases generally give a strong reaction; but mild cases may often do so. In Table I. there is no reference to this point, as it was only during the later months that I paid much attention to the strength of the reaction.

(f) That the blood may be kept for some time without losing the reaction (see Remarks, Table I.). The longest time of keeping has been eleven months.

Cases in which the blood previously tested has become putrid have again given the reaction. The exception to this might be the *post-mortem* blood of E. H., admitted October 2nd, 1897. Unfortunately this blood had not previously been tested.

I have to tender my especial thanks to Professor Macfadyen, of the British Institute of Preventive Medicine, for his ever-ready advice and assistance. It was entirely at his suggestion that I made trial of this reaction. I have also to thank Mr. Pakes, of Guy's Hospital, for useful suggestions.



A MAP OF
LONDON
SHOWING
THE SEVERAL SANITARY DISTRICTS
COMPILED BY
THE METROPOLITAN BOARD OF HEALTH
1897.

The spots represent SCARLET FEVER
of the 2nd Quarter 1897.

Hospitals of the Met. Board of Health
Ambulance Station +
Ambulance Wharf H WEST WHARF

E. Hospital







A MAP OF
LONDON
SHOWING
THE SEVERAL SANITARY DISTRICTS
COMPARED TO
THE MEDIOCRAN DISTRICTS
1897.

SCARLET FEVER 4th QUARTER 1897.

Legend:
+ E. Hospital
H WEST WHARF

A MAP OF
LONDON
SHOWING
THE SEVERAL SANITARY DISTRICTS
OF THE METROPOLITAN DISTRICT
1807

DIPHTHERIA

Legend:
+ E. Hospital
+ S.W. Hospital
+ W. Hospital
+ N.E. Hospital
+ WEST WHARF



The spots represent **SMALLPOX & TYPHUS** Cases notified under the provisions of the 'Public Health (London) Act, 1889'.
THE CROSSES INDICATE THE TYPHUS FEVER CASES
 Hospitals of the Metropolitan Asylums Board, thus: **E. Hospital**
 Ambulance Stations, thus: **+**
 Ambulance Wharves, thus: **H WEST WHARF**



A MAP OF LONDON

SHOWING
THE SEVERAL SANITARY DISTRICTS
CONTAINED IN
THE METROPOLITAN DISTRICT
1897

The spots represent ENTERIC & TYPHOID cases reported under the provisions of the Public Health (London) Act, 1891.

Hospitals of the Metropolitan Asylums Board shown as E. Hospital
Ambulance Stations, thus +
Ambulance Wharves, thus H WEST WHARF





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